COMMISSION DECISION

APPLICATION FOR CERTIFICATION

UNITED GOLDEN GATE
POWER PROJECT, Phase I

(UNITED GOLDEN GATE POWER COMPANY, LLC)

Docket No 00-AFC-5

MARCH 2001

CALIFORNIA ENERGY COMMISSION

Gray Davis, *Governor*

P 800-01-006

STATE OF CALIFORNIA

Energy Resources
Conservation and Development Commission

In the Matter of:	)	**Docket No. 00-AFC-5**
	)	
Application for Certification	)	**COMMISSION ADOPTION ORDER**
for the United Golden Gate	)	ORDER NO. 00-0307-09
Power Project (UGGPP), Phase 1	)	
	)	

This Commission Order adopts the Commission Decision on the United Golden Gate Power Project, Phase 1. It incorporates the Amended Presiding Member s Proposed Decision (PMPD) in the above-captioned matter and the Committee Errata, dated March 7, 2001, thereto. The Commission Decision is based upon the evidentiary record of these proceedings (Docket No. 00-AFC-5) and considers the comments received at the March 7, 2001, business meeting. The text of the attached Commission Decision contains a summary of the proceedings, the evidence presented, and the rationale for the findings reached and Conditions imposed.

This ORDER adopts by reference the text, Conditions of Certification, Compliance Verifications, and Appendices contained in the Commission Decision. It also adopts specific requirements contained in the PMPD which ensure that the proposed facility will be designed, sited, and operated in a manner to protect environmental quality, to assure public health and safety, and to operate in a safe and reliable manner.

FINDINGS

The Commission hereby adopts the following findings in addition to those contained in the accompanying text:

1. The United Golden Gate Power Project, Phase 1 is a merchant power plant, owned by United Golden Gate Power Company, LLC, a wholly owned subsidiary of El Paso Merchant Energy Company. The capital costs of the United Golden Gate Power Project will not be borne by the State s electricity ratepayers.

2. The Conditions of Certification contained in the accompanying text, if implemented by the Applicant, ensure that the project will be designed, sited, and operated in conformity with applicable local, regional, state, and federal laws, ordinances, regulations, and standards, including applicable public health and safety standards, and air and water quality standards.

3. Implementation of the Conditions of Certification contained in the accompanying text will ensure protection of environmental quality and assure reasonably safe and reliable operation of the facility. The Conditions of Certification also assure that the project will

neither result in, nor contribute substantially to, any significant direct, indirect, or cumulative adverse environmental impacts.

4. Existing governmental land use restrictions are sufficient to adequately control population density in the area surrounding the facility and may be reasonably expected to ensure public health and safety.

5. The evidence of record does not establish the existence of any environmentally superior alternative site.

6. The analysis of record assesses all potential environmental impacts associated with the 51 MW configuration.

7. The Decision contains measures to ensure that the planned, temporary, or unexpected closure of the project will occur in conformance with applicable laws, ordinances, regulations, and standards.

8. This simple cycle power plant has been licensed pursuant to the expedited licensing procedures contained in Public Resources code section 25552.

9. The proceedings leading to this Decision have been conducted in conformity with the applicable provisions of Commission regulations governing the consideration of an Application for Certification and thereby meet the requirements of Public Resources Code, sections 21000 et seq., and 25500 et seq.

ORDER

Therefore, the Commission ORDERS the following:

1. The Application for Certification of the United Golden Gate Power Project, Phase 1, owned by United Golden Gate Power Company, LLC, a wholly owned subsidiary of El Paso Merchant Energy Company, as described in this Decision is hereby approved and a certificate to construct and operate the project is hereby granted.

2. Within three years of commencing operations, this permit shall terminate and the United Golden Gate Power Project, Phase I, shall cease operations unless the Commission has granted a new license to a combined-cycle power plant that will replace this simple-cycle power plant, consistent with Public Resources Code section 25552(e)(5).

3. The approval of the Application for Certification is subject to the timely performance of the Conditions of Certification and Compliance Verifications enumerated in the accompanying text and Appendices. The Conditions and Compliance Verifications are integrated with this Decision and are not severable therefrom. While the project owner may delegate the performance of a Condition or Verification, the duty to ensure adequate performance of a Condition or Verification may not be delegated.

4. For purposes of reconsideration pursuant to Public Resources Code section 25530, this Decision is deemed adopted when filed with the Commission s Docket Unit.

5. For purposes of judicial review pursuant to Public Resources Code section 25531, this Decision is final thirty (30) days after its filing in the absence of the filing of a petition for reconsideration or, if a petition for reconsideration is filed within thirty (30) days, upon the adoption and filing of an Order upon reconsideration with the Commission s Docket Unit.

6. The Commission hereby adopts the Conditions of Certification, Compliance Verifications, and associated dispute resolution procedures as part of this Decision in order to implement the compliance monitoring program required by Public Resources Code section 25532. All conditions in this Decision take effect immediately upon adoption and apply to all construction and site preparation activities including, but not limited to, ground disturbance, site preparation, and permanent structure construction.

7. The Executive Director of the Commission shall transmit a copy of this Decision and appropriate accompanying documents as provided by Public Resources Code section 25537 and California Code of Regulations, title 20, section 1768.

Dated:

ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

WILLIAM J. KEESE
Chairman

-ABSENT-
MICHAL C. MOORE
Commissioner

ROBERT A. LAURIE
Commissioner

ROBERT PERNELL
Commissioner

ARTHUR H. ROSENFELD
Commissioner

CALIFORNIA ENERGY COMMISSION

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CALIFORNIA ENERGY COMMISSION

WILLIAM J. KEESE, Chairman

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ROBERT A. LAURIE, Commissioner

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I. PROJECT PURPOSE AND DESCRIPTION

SUMMARY OF THE EVIDENCE

El Paso Merchant Energy (El Paso) proposes to construct and operate Phase I of the United Golden Gate Power Project (UGGPP). El Paso has proposed Phase I to help meet peak power demand in California for three years starting in August 2001. Phase I is a simple-cycle power plant that is being considered under the terms of the four-month expedited permitting process enacted in section 25552 of the Public Resources Code. El Paso is expected to submit an Application for Certification (AFC) for a 570 MW combined-cycle power plant that would replace Phase I. That AFC will be considered by the Energy Commission in a separate certification process.

PROJECT LOCATION

Applicant intends to locate Phase I of the UGGPP on a portion of the San Francisco International Airport (SFIA). See **Project Description Figure 1.** The Project site is approximately 2 acres adjacent to the United Airlines Maintenance and Operations Center (UMOC). See **Project Description Figure 2.** The site is across the fence line from the United Cogeneration Inc. (UCI) cogeneration power plant, and would tie into the existing UCI infrastructure for natural gas, transmission grid interconnection, and water supply. No off-site linear facilities are proposed as part of the Phase I UGGPP. The Project site is currently a portion of a paved parking lot used by UMOC employees.

The proposed site is owned by the City and County of San Francisco and operated by the San Francisco Airport Commission (Airport Commission). The Airport Commission leases land, including the Project site, to United Airlines for the UMOC. El Paso plans to sublease the site from United. Negotiations over the sublease agreement are still in progress. The sublease will also require approval by the Airport Commission.

Project Description Figure 1

Project Description Figure 2

POWER PLANT

Phase I of the UGGPP is a proposed nominal 51 MW natural gas-fired simple-cycle power plant. This nominal rating is based on El Paso s evaluation of the preliminary design information and generating equipment manufacturers guarantees and is the best estimate at this time. Although the analysis in the record are based on 51 MW capacity, the Project s actual maximum generating capacity will probably differ from, and may exceed, this figure. The Project will occupy about 2 acres and contain the combustion turbine generator and various support facilities.

The proposed power plant will use a General Electric LM 6000 combustion turbine generator with a high temperature selective catalytic reduction (SCR) system and a 140-foot stack. It will also include a gas compressor, a 115 kV electrical switchyard, an aqueous ammonia injection system, a temporary water treatment system, and a control trailer.

Project Description **Figure 4** shows the preliminary site plan for Phase I of the UGGPP. Project Description **Figure 5** shows elevations of the power plant facilities.

The Phase 1 of the UGGPP will connect to the transmission grid through the UCI switchyard adjacent to the project site. This connection will require a tap, bus work, and miscellaneous other equipment in the UCI switchyard.

Natural gas will be supplied to the Project through a connection with the existing UCI natural gas supply line. This connection will be made at an existing utility tunnel located in the southern portion of the UCI site, approximately 50 feet west of the UGGPP site and approximately 450 south-southwest of the location of the UGGPP Phase I gas metering station.

Water requirements for the Project are less than 100 gallons per minute, peak flow. El Paso plans to use wastewater from the United Airline Metal Removal Plant (MRP). The MRP has sufficient capacity to serve Phase I of the UGGPP. The Project s minimal potable water supply needs will be provided by the airport s potable water supply. Connection to both water supplies will be made at the existing utility tunnel at the south end of the UCI site.

Process wastewater discharge will be sent to UCI s cooling towers. Sanitary wastewater will be sent to the airport s sanitary sewer system.

Project Description Figure 4 Preliminary Site Plan

Project Description Figure 5 Elevations

CONSTRUCTION AND OPERATION

El Paso plans to complete construction and start operation of the simple-cycle unit by August 1, 2001. During construction, up to approximately 30 construction jobs will be created over the four-month construction schedule. A single plant operator per shift will be needed to operate the plant.

CLOSURE OR REPLACEMENT

Phase I of UGGPP is being considered under section 25552 of the Public Resources Code. Under the terms of this section, the project must either cease to operate and the permit will terminate within three years [or] be modified, replaced, or removed within a period of three years with a combined-cycle power plant (Pub. Resources Code⁄25552(e)(5)). Project owner El Paso intends to submit an AFC for a replacement combined-cycle power plant. If this AFC is received and the replacement project is certified, that certification will include appropriate conditions for the transition from the Phase I simple-cycle power plant to the combined-cycle power plant and the eventual closure of the replacement facility. If a replacement combined-cycle power plant is not certified, the Phase I certification will terminate three years after the start of operation and closure of the facility will proceed as described in the **General Conditions Including Compliance Monitoring and Closure Plan** section.

FINDINGS AND CONCLUSIONS

Based upon the evidence of record, the Committee finds as follows:

1. The Project involves the installation of a nominal 51 MW natural gas-fired simple cycle power plant, using a General electric LM 6000 combustion turbine generator with a high temperature selective catalytic reduction (SCR) system and a 140-foot stack.

2. The Project will also include a gas compressor, a 115 kV electrical switchyard, and aqueous ammonia injection system, a temporary water treatment system, and a control trailer.

3. The Project includes no off-site linear facilities.

4. The Project is adequately described in Exhibit 1, sections 1, 2, 3 as introduced by Applicant and in the Staff Assessment (Ex. 10 pp. 11-19.)

5. By Order of December 6, 2000, the Commission determined that the Project qualifies for treatment under a four-month expedited review process pursuant to Public Resources Code section 25552.

We therefore conclude that the United Golden Gate Power Project, Phase 1 is described at a level of detail sufficient to allow review in compliance with the provisions of both the Warren-Alquist Act and the California Environmental Quality Act (CEQA).

II. PROJECT ALTERNATIVES

SUMMARY OF THE EVIDENCE

The Commission is required to examine the feasibility of available site and facility alternatives to the applicant s proposal that substantially lessen the significant adverse impacts of the proposal on the environment . The Commission must examine a reasonable range of feasible alternative sites which could substantially reduce or avoid any potentially significant adverse environmental impacts of the proposed project (Cal. Code Regs., tit. 14, ⁄15126.6; Cal. Code Regs., tit. 20,⁄1765). This section identifies the potential significant impacts of the proposed project and analyzes technology alternatives and alternative sites that may reduce or avoiding significant impacts. Alternatives were examined in response to information provided by Energy Commission staff and staffs of other agencies.

The evidence of record establishes that the Project with the mitigation measures proposed by Applicant and Staff, does not result in any significant impacts.

Based on the Applicant s filings and its AFC, the Committee has determined the objectives of Phase I of UGGPP to be:

- to supply electricity on demand during periods of peak demand along the San Francisco Peninsula transmission corridor for up to three years beginning in August, 2001; and
- to expedite timely completion of the project and to minimize project impacts by locating near key infrastructure, such as transmission line interconnections and supplies of process water and natural gas.

As noted above, Staff has evaluated the proposed project and determined that the Project with the mitigation measures proposed by the applicant and Energy Commission staff does not result in any significant impacts.

TECHNOLOGY ALTERNATIVES

One alternative to a power generation project could be programs to reduce energy consumption. These programs are typically called energy efficiency, conservation, or demand side management programs. One goal of these programs is to reduce overall electricity use; some programs also attempt to shift such energy use to off-peak periods.

However, the Commission s most recent need determination, adopted in 1997, makes it abundantly clear that conservation programs alone can not displace the need for power generation for California s growing economy. (Ex. SA, p. 326.)

Commission staff also compared various generating alternative technologies with the proposed project, scaled to meet the project s objectives and time frame. Technologies examined were geothermal, solar and wind. Each of these technologies could be attractive from an environmental perspective because of the absence or reduced level of air pollutant emissions. However, a solar project comparable to the proposed 51 megawatt Phase I UGGPP would require a minimum of 200 acres, or more than 100 times the amount of space taken by the proposed project. Wind generation farms generally require about 17 acres per megawatt, with 51 megawatts needing more than 850 acres, more than 400 times the amount of space taken by the proposed plant site (Id.).

Solar and wind technologies have the potential for significant land use impacts due to the large land areas required. Limited land is available for immediate solar or wind energy development along the San Francisco Peninsula. In addition, a key objective of this project is to supply electricity on demand during periods of peak demand along the San Francisco Peninsula transmission corridor for up to three years beginning in August, 2001. Solar and wind power projects are also less effective as on-demand peak generators because of their dependence on weather conditions. Therefore, such facilities do not provide an alternative to the proposed project.

No significant geothermal resources are available on the San Francisco Peninsula. Therefore, geothermal power is not a feasible alternative to the proposed Project.

SITE ALTERNATIVES

Applicant s primary objective for developing Phase I of the UGGPP separate from the main project is to be able to provide electrical generation capacity along the San Francisco Peninsula during times of peak demand for three years starting in August 2001. To allow El Paso to meet this objective, alternative sites would need to be immediately available for development, provide ready access to a means to connect to the electrical transmission grid and to sources of adequate natural gas and water.

PG&E identified numerous substation sites in the San Francisco Bay Area as potential sites to interconnect temporary peaking power plants. However, the feasibility and preferability of such other sites is highly doubtful. Commission staff has not identified any significant impacts related to the Phase I of UGGPP that would make the proposed site unacceptable. Therefore, no alternative sites could reduce significant impacts. It is also noteworthy that no project at an alternative site not already planned could possibly be licensed and constructed to be on-line in the summer of 2001.

For the Phase I UGGPP, El Paso proposes to connect to the existing services serving the United Cogeneration Inc. (UCI) facility adjacent to the project site for natural gas, transmission interconnection, raw water supply, and wastewater disposal. Connecting to these services at the UCI facility minimizes the length of linear facilities such as pipelines or transmission lines associated with the project, and helps the Project meet its objective of being online by August 1, 2001. The Commission does not consider alternatives for these related facilities to be feasible.

NO PROJECT ALTERNATIVE

CEQA Guidelines and Energy Commission regulations require consideration of the no project alternative. This alternative assumes that the Project is not constructed, and is compared to the proposed Project. A determination is made whether the no project alternative is superior, equivalent, or inferior to the proposed Project.

If the proposed Project is not licensed, new air emissions from the Project will be avoided. The existing parking lot where the facility would be built would remain a parking lot. In addition, 51 megawatts of peaking capacity would not be added to the area s generation capacity, and regional electrical grid reliability would be lower. Electrical reliability at the airport would likewise be lower. The possibility of load shedding, power interruption, and even regional blackouts would be higher. Load interruption has its own environmental consequences, including higher air emissions from small-scale backup generators, which are normally diesel-fired. Load shedding and blackouts lead to public health and public safety hazards that can increase both accidents and overall mortality.

The Commission has not identified any significant impacts resulting from the proposed Phase I of the UGGPP. The Project also offers economic and electric benefits. Project construction and operation would have a small beneficial impact on both the study area s economic base and fiscal resources through employment of both local and regional workers, as well as through the purchases of local and regional construction materials. The Project would also provide additional electrical generation capacity at times of peak demand during the next three years. Therefore, the Commission has determined that the proposed Project is superior to the no project alternative.

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. The Project is proposed for location within the existing United Airlines maintenance area of the San Francisco International Airport, a part of the community already dedicated to heavy industry.

2. The evidentiary record contains a review of alternative technologies, fuels, and the no project alternative.

3. No feasible technology alternatives such as geothermal, solar, or wind resources are located near the Project or are capable of meeting Project objectives.

4. The use of alternative generating technologies would not prove efficient, cost-effective or mitigate any significant environmental impacts to levels of insignificance.

5. No significant environmental impacts would be avoided under the no project alternative.

6. The evidentiary record contains an adequate analysis of onsite equipment configurations and offsite alternative locations.

If all Conditions of Certification contained in this Decision are implemented, construction and operation of the United Golden Gate Power Project, Phase 1, will not create any significant direct, indirect, or cumulative significant adverse environmental impacts.

Additionally, we conclude the potential adverse environmental impacts and potential cumulative impacts related to the Project will be mitigated to levels of insignificance in conformance with all applicable laws, ordinances, regulations, and standards.

We therefore conclude that the evidence of record contains sufficient analyses of alternatives to comply with the requirements of the Warren-Alquist Act and with the California Environmental Quality Act.

III. COMPLIANCE AND CLOSURE

GENERAL CONDITIONS INCLUDING COMPLIANCE MONITORING AND CLOSURE PLAN

The project General Conditions Including Compliance Monitoring and Closure Plan (Compliance Plan) have been established as required by Public Resources Code section 25532. The plan provides a means for assuring that the facility is constructed, operated and closed in conjunction with air and water quality, public health and safety, environmental and other applicable regulations, guidelines, and conditions adopted or established by the California Energy Commission (Energy Commission) and specified in the written decision on the Application for Certification or otherwise required by law.

The Compliance Plan is composed of the following elements:

1. General conditions that:
    a. set forth the duties and responsibilities of the Compliance Project Manager (CPM), the project owner, delegate agencies, and others;
    b. set forth the requirements for handling confidential records and maintaining the compliance record;
    c. state procedures for settling disputes and making post-certification changes;
    d. state the requirements for periodic compliance reports and other administrative procedures that are necessary to verify the compliance status for all Energy Commission approved conditions; and
    e. establish requirements for facility closure plans.

2. Specific conditions of certification:
    a. Specific conditions of certification that follow each technical area contain the measures required to mitigate any and all potential adverse project impacts associated with construction, operation and closure to an insignificant level. Each specific condition of certification also includes a verification provision that describes the method of verifying that the condition has been satisfied.

GENERAL CONDITIONS OF CERTIFICATION

DEFINITIONS

To ensure consistency, continuity and efficiency, the following terms, as defined, apply to all technical areas, including Conditions of Certification:

SITE MOBILIZATION

Moving trailers and related equipment onto the site, usually accompanied by minor ground disturbance, grading for the trailers and limited vehicle parking, trenching for utilities, installing utilities, grading for an access corridor, and other related activities. Ground disturbance, grading, etc. for site mobilization are limited to the portion of the site necessary for placing the trailers and providing access and parking for the occupants. Site mobilization is for temporary facilities and is therefore not considered construction.

GROUND DISTURBANCE

Onsite activity that results in the removal of soil or vegetation, boring, trenching or alteration of the site surface. This does not include driving or parking a passenger vehicle, pickup truck, or other light vehicle, or walking on the site.

GRADING

Onsite activity conducted with earth-moving equipment that results in alteration of the topographical features of the site such as leveling, removal of hills or high spots, or moving of soil from one area to another.

CONSTRUCTION

[From section 25105 of the Warren-Alquist Act.] Onsite work to install permanent equipment or structures for any facility. Construction does **not** include the following:

a. The installation of environmental monitoring equipment.

b. A soil or geological investigation.

c. A topographical survey.

d. Any other study or investigation to determine the environmental acceptability or feasibility of the use of the site for any particular facility.

e. Any work to provide access to the site for any of the purposes specified in a., b., c., or d.

COMPLIANCE PROJECT MANAGER (CPM) RESPONSIBILITIES

A CPM will oversee the compliance monitoring and shall be responsible for:

1. ensuring that the design, construction, operation, and closure of the project facilities is in compliance with the terms and conditions of the Commission Decision;
2. resolving complaints;
3. processing post-certification changes to the conditions of certification, project description, and ownership or operational control;
4. documenting and tracking compliance filings; and,
5. ensuring that the compliance files are maintained and accessible.

The CPM is the contact person for the Energy Commission and will consult with appropriate responsible agencies and the Energy Commission when handling disputes, complaints and amendments.

All project compliance submittals are submitted to the CPM for processing. Where a submittal required by a condition of certification requires CPM approval, it should be understood that the approval would involve all appropriate staff and management.

The Commission has established a toll free compliance telephone number of **1-800-858-0784** for the public to contact the Commission about power plant construction or operation-related questions, complaints or concerns.

PRE-CONSTRUCTION AND PRE-OPERATION COMPLIANCE MEETING

The CPM may schedule pre-construction and pre-operation compliance meetings prior to the projected start-dates of construction, plant operation, or both. The purpose of these meetings will be to assemble both the Energy Commission s and the project owner s technical staff to review the status of all pre-construction or pre-operation requirements contained in the Energy Commission s conditions of certification to confirm that they have been met, or if they have not been met, to ensure that the proper action is taken. In addition, these meetings shall ensure, to the extent possible, that Energy Commission conditions will not delay the construction and operation of the plant due to oversight or inadvertence and to preclude any last minute, unforeseen issues from arising. Pre-construction meetings held during the certification process must be publicly noticed unless they are confined to administrative issues and processes.

ENERGY COMMISSION RECORD

The Energy Commission shall maintain as a public record, in either the Compliance file or Docket file, for the life of the project (or other period as required):

1. all documents demonstrating compliance with any legal requirements relating to the construction and operation of the facility;
2. all monthly and annual compliance reports filed by the project owner;

3. all complaints of noncompliance filed with the Energy Commission; and,
4. all petitions for project or condition changes and the resulting staff or Energy Commission action taken.

PROJECT OWNER RESPONSIBILITIES

It is the responsibility of the project owner to ensure that the general compliance conditions and the conditions of certification are satisfied. The general compliance conditions regarding post-certification changes specify measures that the project owner must take when requesting changes in the project design, compliance conditions, or ownership. The post-certification changes do not include changes related to replacement of the simple-cycle power plant with a combined-cycle power plant pursuant to section 25552 of the Public Resources Code. All facility changes related to replacement of the power plant will be addressed through the review of an Application for Certification for the replacement combined-cycle power plant. Failure to comply with any of the conditions of certification or the general compliance conditions may result in reopening of the case and revocation of Energy Commission certification, an administrative fine, or other action as appropriate.

ACCESS

The CPM, responsible Energy Commission staff, and delegate agencies or consultants, shall be guaranteed and granted unrestricted access to the power plant site, related facilities, project-related staff, and the records maintained on site, for the purpose of conducting audits, surveys, inspections, or general site visits. Although the CPM will normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time.

COMPLIANCE RECORD

The project owner shall maintain project files on-site or at an alternative site approved by the CPM, for the life of the project. The files shall contain copies of all as-built drawings, all documents submitted as verification for conditions, and all other project-related documents for the life of the project, unless a lesser period is specified by the conditions of certification.

Energy Commission staff and delegate agencies shall, upon request to the project owner, be given unrestricted access to the files.

COMPLIANCE VERIFICATIONS

Each condition of certification is followed by a means of verification . The verification describes the Energy Commission s procedure(s) to ensure post-certification compliance with adopted conditions. The verification procedures, unlike the conditions, may be modified, as necessary by the CPM, and in most cases without full Energy Commission approval.

Verification of compliance with the conditions of certification can be accomplished by:

- reporting on the work done and providing the pertinent documentation in monthly and/or annual compliance reports filed by the project owner or authorized agent as required by the specific conditions of certification;
- appropriate letters from delegate agencies verifying compliance;
- Energy Commission staff audits of project records; and/or
- Energy Commission staff inspections of mitigation and/or other evidence of mitigation.

Verification lead times (e.g., 90, 60 and 30-days) associated with start of construction may require the project owner to file submittals during the certification process, particularly if construction is planned to commence shortly after certification.

A cover letter from the project owner or authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters. **The cover letter subject line shall identify the involved condition(s) of certification by condition number and include a brief description of the subject of the submittal**. The project owner shall also identify those submittals **not** required by a condition of certification with a statement such as: This submittal is for information only and is not required by a specific condition of certification. When submitting supplementary or corrected information, the project owner shall reference the date of the previous submittal.

The project owner is responsible for the delivery and content of all verification submittals to the CPM, whether such condition was satisfied by work performed by the project owner or an agent of the project owner.

All submittals shall be addressed as follows:

Compliance Project Manager
California Energy Commission
1516 Ninth Street (MS-2000)
Sacramento, CA 95814

If the project owner desires Energy Commission staff action by a specific date, they shall so state in their submittal and include a detailed explanation of the effects on the project if this date is not met.

COMPLIANCE REPORTING

There are two different compliance reports that the project owner must submit to assist the CPM in tracking activities and monitoring compliance with the terms

and conditions of the Commission Decision. During construction, the project owner or authorized agent will submit Monthly Compliance Reports. During operation, an Annual Compliance Report must be submitted. These reports, and the requirement for an accompanying compliance matrix, are described below. The majority of the conditions of certification require that compliance submittals be submitted to the CPM in the monthly or annual compliance reports.

COMPLIANCE MATRIX

A compliance matrix shall be submitted by the project owner to the CPM along with each monthly and annual compliance report. The compliance matrix is intended to provide the CPM with the current status of all compliance conditions in a spreadsheet format. The compliance matrix must identify:

1. the technical area,
2. the condition number,
3. a brief description of the verification action or submittal required by the condition,
4. the date the submittal is required (e.g., 60 days prior to construction, after final inspection, etc.),
5. the expected or actual submittal date,
6. the date a submittal or action was approved by the Chief Building Official (CBO), CPM, or delegate agency, if applicable, and
7. the compliance status for each condition (e.g., not started , in progress or completed date).

Completed or satisfied conditions do not need to be included in the compliance matrix after they have been identified as completed/satisfied in at least one monthly or annual compliance report.

PRE-CONSTRUCTION MATRIX

Prior to commencing construction a compliance matrix addressing only those conditions that must be fulfilled before the start of construction shall be submitted by the project owner to the CPM. This matrix will be included with the project owner s **first** compliance submittal. It will be in the same format as the compliance matrix referenced above.

TASKS PRIOR TO START OF CONSTRUCTION

Construction shall not commence until the pre-construction matrix is submitted, all pre-construction conditions have been complied with, and the CPM has issued a letter to the project owner authorizing construction. Project owners frequently anticipate starting project construction as soon as the project is certified. In some cases it may be necessary for the project owner to file submittals prior to certification if the required lead-time for a required compliance event extends beyond the date anticipated for start of construction. It is also important that the

project owner understand that pre-construction activities that are initiated prior to certification are performed at the owner s own risk. Failure to allow specified lead-time may cause delays in start of construction.

Various lead times for verification submittals to the CPM for conditions of certification are established to allow sufficient staff time to review and comment, and if necessary, allow the project owner to revise the submittal in a timely manner. This will ensure that project construction may proceed according to schedule.

MONTHLY COMPLIANCE REPORT

The first Monthly Compliance Report is due the month following the Energy Commission business meeting date on which the project was approved, unless otherwise agreed to by the CPM. The first Monthly Compliance Report shall include an initial list of dates for each of the events identified on the Key Events List. The Key Events List is found at the end of this section.

During pre-construction and construction of the project, the project owner or authorized agent shall submit an original and five copies of the Monthly Compliance Report within 10 working days after the end of each reporting month. Monthly Compliance Reports shall be clearly identified for the month being reported. The reports shall contain at a minimum:

1. a summary of the current project construction status, a revised/updated schedule if there are significant delays, and an explanation of any significant changes to the schedule;
2. documents required by specific conditions to be submitted along with the Monthly Compliance Report. Each of these items must be identified in the transmittal letter, and should be submitted as attachments to the Monthly Compliance Report;
3. an initial, and thereafter updated, compliance matrix which shows the status of all conditions of certification (fully satisfied and/or closed conditions do not need to be included in the matrix after they have been reported as closed);
4. a list of conditions which have been satisfied during the reporting period, and a description or reference to the actions which satisfied the condition;
5. a list of any submittal deadlines that were missed accompanied by an explanation and an estimate of when the information will be provided;
6. a cumulative listing of any approved changes to conditions of certification;
7. a listing of any filings with, or permits issued by, other governmental agencies during the month;

8. a projection of project compliance activities scheduled during the next two months. The project owner shall notify the CPM as soon as any changes are made to the project construction schedule that would affect compliance with conditions of certification;
9. a listing of the month s additions to the on-site compliance file; and
10. any requests to dispose of items that are required to be maintained in the project owner s compliance file.
11. a listing of complaints, notices of violation, official warnings, and citations received during the month; a description of the resolution of any complaints which have been resolved, and the status of any unresolved complaints.

ANNUAL COMPLIANCE REPORT

After the air district has issued a Permit to Operate, the project owner shall submit Annual Compliance Reports instead of Monthly Compliance Reports. The reports are for each year of commercial operation and are due to the CPM each year at a date agreed to by the CPM. Annual Compliance Reports shall be submitted over the life of the project unless otherwise specified by the CPM. Each Annual Compliance Report shall identify the reporting period and shall contain the following:

1. an updated compliance matrix which shows the status of all conditions of certification (fully satisfied and/or closed conditions do not need to be included in the matrix after they have been reported as closed);
2. a summary of the current project operating status and an explanation of any significant changes to facility operations during the year;
3. documents required by specific conditions to be submitted along with the Annual Compliance Report. Each of these items must be identified in the transmittal letter, and should be submitted as attachments to the Annual Compliance Report;
4. a cumulative listing of all post-certification changes approved by the Energy Commission or cleared by the CPM;
5. an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided;
6. a listing of filings made to, or permits issued by, other governmental agencies during the year;
7. a projection of project compliance activities scheduled during the next year;
8. a listing of the year s additions to the on-site compliance file, and
9. an evaluation of the on-site contingency plan for unexpected facility closure, including any suggestions necessary for bringing the plan up to

date [see General Conditions for Facility Closure addressed later in this section].

10. a listing of complaints, notices of violation, official warnings, and citations received during the year; a description of the resolution of any complaints which have been resolved, and the status of any unresolved complaints.

CONFIDENTIAL INFORMATION

Any information, which the project owner deems confidential shall be submitted to the Energy Commission s Docket with an application for confidentiality pursuant to Title 20, California Code of Regulations, section 2505(a). Any information, which is determined to be confidential, shall be kept confidential as provided for in Title 20, California Code of Regulations, section 2501 et. seq.

DEPARTMENT OF FISH AND GAME FILING FEE

Pursuant to the provisions of Fish and Game Code Section 711.4, the project owner shall pay a filing fee in the amount of eight hundred and fifty dollars ($850). The payment instrument shall be provided to the Commission s Project Manager at the time of project certification and shall be made payable to the California Department of Fish and Game. The Commission s Project Manager will submit the payment to the Office of Planning and Research at the time of filing of the notice of decision pursuant to Public Resources Code Section 21080.5.

REPORTING OF COMPLAINTS, NOTICES, AND CITATIONS

Prior to the start of construction, the project owner must send a letter to property owners living within 1,000 feet of the project notifying them of a telephone number to contact project representatives with questions, complaints or concerns. If the telephone is not staffed 24 hours per day, it shall include automatic answering, with date and time stamp recording. The telephone number shall be posted at the project site and easily visible to passersby during construction and operation.

In addition to the monthly and annual compliance reporting requirements described above, the project owner shall report and provide copies of all complaint forms, notices of violation, notices of fines, official warnings, and citations, within 10 days of receipt, to the CPM. Complaints shall be logged and numbered. Noise complaints shall be recorded on the form provided in the **NOISE** conditions of certification. All other complaints shall be recorded on the complaint form on the following page.

COMPLAINT REPORT/RESOLUTION FORM

PROJECT NAME:
AFC Number:

COMPLAINT LOG NUMBER _____
Complainant s name and address:

Phone number:

Date and time complaint received:

Indicate if by telephone or in writing (attach copy if written):
Date of first occurrence:

Description of complaint (including dates, frequency, and duration):

Findings of investigation by plant personnel:

Indicate if complaint relates to violation of a CEC requirement:
Date complainant contacted to discuss findings:

Description of corrective measures taken or other complaint resolution:

Indicate if complainant agrees with proposed resolution:
If not, explain:

Other relevant information:

If corrective action necessary, date completed:
Date first letter sent to complainant: _____(copy attached)
Date final letter sent to complainant: _____(copy attached)

This information is certified to be correct.
Plant Manager s Signature: _____ Date:

(Attach additional pages and supporting documentation, as required.)

FACILITY CLOSURE

Phase I of UGGPP is being considered under section 25552 of the Public Resources Code. Under the terms of this section, the project must either cease to operate and the permit will terminate within three years [or] be modified, replaced, or removed within a period of three years with a combined-cycle power plant (Pub. Resources Code ⁄25552(e)(5)). Any conversion of the simple-cycle power plant to a combined-cycle power plant will require the submittal of an Application for Certification (AFC). If an AFC is filed and the replacement project is certified, that certification will include appropriate conditions for the transition from the Phase I simple-cycle power plant to the combined-cycle power plant. If a replacement combined-cycle power plant is not certified, the Phase I certification will terminate three years after the date of certification.

If the power plant ceases operation and is closed down,it will be necessary to ensure that the closure occurs in such a way that public health and safety and the environment are protected from adverse impacts. Although the project setting for this project does not appear, at this time, to present any special or unusual closure problems, it is impossible to foresee what the environment will be when the project ceases operation. Therefore, provisions must be made which provide the flexibility to deal with the specific situation and project setting which that exist at the time of closure. LORS pertaining to facility closure are identified in the sections dealing with each technical area. Facility closure will be consistent with LORS in effect at the time of closure.

There are at least three circumstances in which a facility closure can take place before the three-year certification expiration: planned closure, unexpected temporary closure and unexpected permanent closure**.**

PLANNED CLOSURE

A planned closure occurs at the end of a project s life, when the facility is closed in an anticipated, orderly manner, at the end of its useful economic or mechanical life, or due to gradual obsolescence.

UNEXPECTED TEMPORARY CLOSURE

An unplanned unexpected temporary closure occurs when the facility is closed suddenly and/or unexpectedly, on a short-term basis, due to unforeseen circumstances such as a natural disaster, or an emergency.

UNEXPECTED PERMANENT CLOSURE

An unplanned unexpected permanent closure occurs if the project owner closes the facility suddenly and/or unexpectedly, on a permanent basis. This includes unexpected closure where the owner remains accountable for implementing the on-site contingency plan. It can also include unexpected closure where the project owner is unable to implement the contingency plan, and the project is essentially abandoned.

GENERAL CONDITIONS FOR FACILITY CLOSURE

PLANNED CLOSURE

In order to ensure that a planned facility closure does not create adverse impacts, a closure process that provides for careful consideration of available options and applicable laws, ordinances, regulations, standards, and local/regional plans in existence at the time of closure, will be undertaken. To ensure adequate review of a planned project closure, the project owner shall submit a proposed facility closure plan to the Energy Commission for review and approval at least twelve months prior to commencement of closure activities (or other period of time agreed to by the CPM). The project owner shall submit this proposed plan no later than two years from the start of operation of the project (or other period of time agreed to by the CPM) unless the Energy Commission is considering or has approved an Application for Certification (AFC) for a replacement power plant. If the Energy Commission is considering an AFC two years from the start of operation, the project owner shall submit a proposed date for the submission of the proposed closure plan to the CPM. The project owner shall file 120 copies (or other number of copies agreed upon by the CPM) of a proposed facility closure plan with the Energy Commission.

The plan shall:

1. identify and discuss any impacts and mitigation to address significant adverse impacts associated with proposed closure activities and to address facilities, equipment, or other project related remnants that will remain at the site.
2. identify a schedule of activities for closure of the power plant site, transmission line corridor, and all other appurtenant facilities constructed as part of the project;
3. identify any facilities or equipment intended to remain on site after closure, the reason, and any future use; and
4. address conformance of the plan with all applicable laws, ordinances, regulations, standards, local/regional plans in existence at the time of facility closure, and applicable conditions of certification.

Also, in the event that there are significant issues associated with the proposed facility closure plan s approval, or the desires of local officials or interested parties are inconsistent with the plan, the CPM shall hold one or more workshops and/or the Commission may hold public hearings as part of its approval procedure.

In addition, prior to submittal of the proposed facility closure plan, a meeting shall be held between the project owner and the Commission CPM for the purpose of discussing the specific contents of the plan.

As necessary, prior to, or during the closure plan process, the project owner shall take appropriate steps to eliminate any immediate threats to public health and safety and the environment, but shall not commence any other closure activities, until Commission approval of the facility closure plan is obtained.

UNEXPECTED TEMPORARY CLOSURE

In order to ensure that public health and safety and the environment are protected in the event of an unexpected temporary facility closure, it is essential to have an on-site contingency plan in place. The on-site contingency plan will help to ensure that all necessary steps to mitigate public health and safety, and environmental impacts, are taken in a timely manner.
The project owner shall submit an on-site contingency plan for CPM review and approval. The plan shall be submitted no less that 60 days (or other time agreed to by the CPM) prior to commencement of commercial operation. The approved plan must be in place prior to commercial operation of the facility and shall be kept at the site at all times.

The project owner, in consultation with the CPM, will update the on-site contingency plan as necessary. The CPM may require revisions to the on-site contingency plan over the life of the project. In the annual compliance reports submitted to the Energy Commission, the project owner will review the on-site contingency plan, and recommend changes to bring the plan up to date. Any changes to the plan must be approved by the CPM.

The on-site contingency plan shall provide for taking immediate steps to secure the facility from trespassing or encroachment. In addition, for closures of more than 90 days (unless other arrangements are agreed to by the CPM), the plan shall provide for removal of hazardous materials and hazardous wastes, draining of all chemicals from storage tanks and other equipment and the safe shutdown of all equipment (also see specific conditions of certification for the technical areas of Hazardous Materials Management and Waste Management).

In addition, consistent with requirements under unexpected permanent closure addressed below, the nature and extent of insurance coverage, and major equipment warranties must also be included in the on-site contingency plan. In addition, the status of the insurance coverage and major equipment warranties must be updated in the annual compliance reports.

In the event of an unexpected temporary closure, the project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, e-mail, etc., within 24 hours and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of the circumstances and expected duration of the closure.

If the CPM determines that a temporary closure is likely to be permanent, or for a duration of more than twelve months, a closure plan consistent with that for a

planned closure shall be developed and submitted to the CPM within 90 days of the CPM s determination (or other period of time agreed to by the CPM).

UNEXPECTED PERMANENT CLOSURE

The on-site contingency plan required for unexpected temporary closure shall also cover unexpected permanent facility closure. All of the requirements specified for unexpected temporary closure shall also apply to unexpected permanent closure.

In addition, the on-site contingency plan shall address how the project owner will ensure that all required closure steps will be successfully undertaken in the unlikely event of abandonment.

In the event of an unexpected permanent closure, the project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, e-mail, etc., within 24 hours and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of the status of all closure activities.

A closure plan consistent with that for a planned closure shall be developed and submitted to the CPM within 90 days of the permanent closure (or other period of time agreed to by the CPM).

DELEGATE AGENCIES

To the extent permitted by law, the Energy Commission may delegate authority for compliance verification and enforcement to various state and local agencies that have expertise in subject areas where specific requirements have been established as a condition of certification. If a delegate agency does not participate in this program, the Energy Commission staff will establish an alternative method of verification and enforcement. Energy Commission staff reserves the right to independently verify compliance.

In performing construction and operation monitoring of the project, the Energy Commission staff acts as, and has the authority of, the Chief Building Official (CBO). The Commission staff retains this authority when delegating to a local CBO. Delegation of authority for compliance verification includes the authority for enforcing codes, the responsibility for code interpretation where required, and the authority to use discretion, as necessary, in implementing the various codes and standards.

Whenever an agency s responsibility for a particular area is transferred by law to another entity, all references to the original agency shall be interpreted to apply to the successor entity.

ENFORCEMENT

The Energy Commission s legal authority to enforce the terms and conditions of its Decision is specified in Public Resources Code sections 25534 and 25900. The Energy Commission may amend or revoke the certification for any facility, and may impose a civil penalty for any significant failure to comply with the terms or conditions of the Commission Decision. The specific action and amount of any fines the Commission may impose would take into account the specific circumstances of the incident(s). This would include such factors as the previous compliance history, whether the cause of the incident involves willful disregard of LORS, inadvertence, unforeseeable events, and other factors the Commission may consider.

Moreover, to ensure compliance with the terms and conditions of certification and applicable laws, ordinances, regulations, and standards, delegate agencies are authorized to take any action allowed by law in accordance with their statutory authority, regulations, and administrative procedures.

NONCOMPLIANCE COMPLAINT PROCEDURES

Any person or agency may file a complaint alleging noncompliance with the conditions of certification. Such a complaint will be subject to review by the Energy Commission pursuant to Title 20, California Code of Regulations, section 1230 et. seq., but in many instances the noncompliance can be resolved by using the informal dispute resolution process. Both the informal and formal complaint procedure, as described in current State law and regulations, are described below. They shall be followed unless superseded by current law or regulations.

INFORMAL DISPUTE RESOLUTION PROCEDURE

The following procedure is designed to informally resolve disputes concerning interpretation of compliance with the requirements of this compliance plan. The project owner, the Energy Commission, or any other party, including members of the public, may initiate this procedure for resolving a dispute. Disputes may pertain to actions or decisions made by any party including the Energy Commission s delegate agents.

This procedure may precede the more formal complaint and investigation procedure specified in Title 20, California Code of Regulations, section 1230 et. seq., but is not intended to be a substitute for, or prerequisite to it. This informal procedure may not be used to change the terms and conditions of certification as approved by the Energy Commission, although the agreed upon resolution may result in a project owner, or in some cases the Energy Commission staff, proposing an amendment.

The procedure encourages all parties involved in a dispute to discuss the matter and to reach an agreement resolving the dispute. If a dispute cannot be resolved,

then the matter must be referred to the full Energy Commission for consideration via the complaint and investigation process. The procedure for informal dispute resolution is as follows:

REQUEST FOR INFORMAL INVESTIGATION

Any individual, group, or agency may request the Energy Commission to conduct an informal investigation of alleged noncompliance with the Energy Commission s terms and conditions of certification. All requests for informal investigations shall be made to the designated CPM.

Upon receipt of a request for informal investigation, the CPM shall promptly notify the project owner of the allegation by telephone and letter. All known and relevant information of the alleged noncompliance shall be provided to the project owner and to the Energy Commission staff. The CPM will evaluate the request and the information to determine if further investigation is necessary. If the CPM finds that further investigation is necessary, the project owner will be asked to promptly investigate the matter and within seven (7) working days of the CPM s request, provide a written report of the results of the investigation, including corrective measures proposed or undertaken, to the CPM. Depending on the urgency of the noncompliance matter, the CPM may conduct a site visit and/or request the project owner to provide an initial report, within forty-eight (48) hours, followed by a written report filed within seven (7) days.

REQUEST FOR INFORMAL MEETING

In the event that either the party requesting an investigation or the Energy Commission staff is not satisfied with the project owner s report, investigation of the event, or corrective measures undertaken, either party may submit a written request to the CPM for a meeting with the project owner. Such request shall be made within fourteen (14) days of the project owner s filing of its written report. Upon receipt of such a request, the CPM shall:

1. immediately schedule a meeting with the requesting party and the project owner, to be held at a mutually convenient time and place;
2. secure the attendance of appropriate Energy Commission staff and staff of any other agency with expertise in the subject area of concern as necessary;
3. conduct such meeting in an informal and objective manner so as to encourage the voluntary settlement of the dispute in a fair and equitable manner; and,
4. after the conclusion of such a meeting, promptly prepare and distribute copies to all in attendance and to the project file, a summary memorandum which fairly and accurately identifies the positions of all parties and any conclusions reached. If an agreement has not been reached, the CPM shall inform the complainant of the formal complaint

process and requirements provided under Title 20, California Code of Regulations, section 1230 et. seq.

FORMAL DISPUTE RESOLUTION PROCEDURE-COMPLAINTS AND INVESTIGATIONS

If either the project owner, Energy Commission staff, or the party requesting an investigation is not satisfied with the results of the informal dispute resolution process, such party may file a complaint or a request for an investigation with the Energy Commission s General Counsel. Disputes may pertain to actions or decisions made by any party including the Energy Commission s delegate agents. Requirements for complaint filings and a description of how complaints are processed are in Title 20, California Code of Regulations, section 1230 et. seq.

The Chairman, upon receipt of a written request stating the basis of the dispute, may grant a hearing on the matter, consistent with the requirements of noticing provisions. The Commission shall have the authority to consider all relevant facts involved and make any appropriate orders consistent with its jurisdiction (Title 20, California Code of Regulations, sections 1232 - 1236).

POST CERTIFICATION CHANGES TO THE COMMISSION DECISION: AMENDMENTS, INSIGNIFICANT PROJECT CHANGES AND VERIFICATION CHANGES

The project owner must petition the Energy Commission, pursuant to Title 20, California Code of Regulations, section 1769, to 1) delete or change a condition of certification; 2) modify the project design or operational requirements; and 3) transfer ownership or operational control of the facility.

A petition is required for **amendments** and for **insignificant project changes**. For verification changes, a letter from the project owner is sufficient. In all cases, the petition or letter requesting a change should be submitted to the Commission s Docket in accordance with Title 20, California Code of Regulations, section 1209.
The criteria that determine which type of change process applies are explained below.

AMENDMENT

A proposed change will be processed as an amendment if it involves a change to the requirement or protocol (and in some cases the verification) portion of a condition of certification, an ownership or operator change, or a potential significant environmental impact.

INSIGNIFICANT PROJECT CHANGE

The proposed change will be processed as an insignificant project change if it does not require changing the language in a condition of certification, have a potential for significant environmental impact, and cause the project to violate laws, ordinances, regulations or standards.

VERIFICATION CHANGE

The proposed change will be processed as a verification change if it involves only the language in the verification portion of the condition of certification. This procedure can only be used to change verification requirements that are of an administrative nature, usually the timing of a required action. In the unlikely event that verification language contains technical requirements, the proposed change must be processed as an amendment.

KEY EVENT LIST

PROJECT: _____

DOCKET #: _____

COMPLIANCE PROJECT MANAGER: _____

EVENT DESCRIPTION	**DATE**
Certification Date	
Online Date	
POWER PLANT SITE ACTIVITIES	
Start Site Mobilization	
Start Ground Disturbance	
Start Rough Grading	
Start Construction	
First Combustion of Gas Turbine	
Start Commercial Operation	
Complete All Construction	
TRANSMISSION LINE ACTIVITIES	
Start T/L Construction	
Synchronization with Grid	
Complete T/L Construction	
FUEL SUPPLY LINE ACTIVITIES	
Start Fuel Supply Line Construction	
Complete Fuel Supply Line Construction	
WATER SUPPLY LINE ACTIVITIES	
Start Water Supply Line Construction	
Complete Water Supply Line Construction	

IV. ENGINEERING ASSESSMENT

A. FACILITY DESIGN

Facility Design encompasses the civil, structural, mechanical and electrical engineering design of the project. The purpose of the Facility Design analysis is to: verify that the laws, ordinances, regulations and standards (LORS) applicable to the design and construction of the project have been identified; verify that the project and ancillary facilities have been described in sufficient detail, determine whether special design features should be considered during final design to deal with conditions unique to the site describe the design review and construction inspection process and establish Conditions of Certification that will be used to monitor and ensure compliance with the intent of the LORS and any special design requirements.

SUMMARY OF THE EVIDENCE

Applicant s witness Jesse D. Fredrick sponsored testimony which consisted of Exhibit 1, sections 1, 2, 3, and 4. Specifically, sections 3.4-3.9 of exhibit 1 address design of the facility. The witness reviewed the Staff Assessment (Ex. 10.) and agreed with Staff s proposed conditions of Certification. (Ex. 12, Fredrick.)

Staff testimony was sponsored by witnesses Steve Baker, Al McCuen and Kisabuli. After reviewing Applicant s design proposals for the Project s structural features, site preparation, major structures and equipment, mechanical systems electrical designs and ancillary facilities, the Staff witnesses concluded that, with the Conditions of Certification, the Project design will meet all LORS and will impose no significant impacts on the environment. (Ex. 10, pp. 269-279.)

FINDINGS AND CONCLUSIONS

Based upon the uncontroverted evidence of record, we find as follows:

1. The laws, ordinances, regulations, and standards (LORS) identified in the AFC, supporting documents and in Appendix A are those applicable to the project.
2. The Commission has evaluated the AFC, and the Project engineering LORS and design criteria in the record and concluded that the design, construction and eventual closure of the Project is likely to comply with applicable engineering LORS.
3. The Conditions of Certification proposed will ensure that the proposed facilities are designed, constructed, operated, and eventually closed in accordance with applicable LORS. This will occur through the use of design review, plan checking and field inspections, which are to be performed by the local CBO or other Commission delegate agent. Commission staff will audit the CBO to ensure satisfactory performance.
4. The Energy Commission design review and construction inspection process will be in place for the project and will allow construction to start as scheduled if the project is certified. The process will provide the necessary reviews to ensure compliance with applicable facility design LORS and conditions of certification.
5. If the Project owner submits a decommissioning plan required by **GEN-9**, prior to the commencement of decommissioning, the decommissioning procedure is likely to result in satisfactory decommissioning performance.
6. The evidence of record contains sufficient information to establish that the proposed facility can be designed and constructed in conformity with the applicable laws, ordinances, regulations, and standards set forth in the appropriate portion of **Appendix A** of this Decision.
7. The Conditions of Certification set forth below are necessary to ensure that the Project is designed and constructed both in accordance with applicable law and in a manner that protects environmental quality and public health and safety.
8. The Facility Design aspects of the proposed Project do not create significant potential cumulative impacts.
9. The Conditions of Certification below and the provisions of the Compliance Plan contained in this Decision set forth requirements to be followed in the event of the planned, or the unexpected temporary, or the unexpected permanent closure of the facility.

We therefore conclude that with the implementation of the Conditions of Certification listed below, the United Golden Gate Power Project, Phase 1 is likely to be designed and constructed in conformity with applicable laws pertinent to its geologic, and its civil, structural, mechanical, and electrical engineering aspects.

CONDITIONS OF CERTIFICATION

GEN-1 The project owner shall design, construct and inspect the project in accordance with the 1998 California Building Code (CBC)[5] and all other applicable LORS in effect at the time initial design plans are submitted to the CBO for review and approval. All transmission facilities (lines, switchyards, switching stations, and substations) are handled in Conditions of Certification TSE-1, TSE-2 and TSE-3 in the **Transmission System Engineering** Section of this document.

Protocol: In the event that the project design is submitted to the Chief Building Official (CBO)[6] when a successor to the 1998 CBC is in effect, the 1998 CBC provisions identified herein shall be replaced with the applicable successor provisions. *Where, in any specific case, different sections of the code specify different materials, methods of construction, or other requirements, the most restrictive shall govern.* Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

Verification: Within 30 days[7] after receipt of the Certificate of Occupancy, the project owner shall submit to the California Energy Commission Compliance Project Manager (CPM) a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation and inspection requirements of the applicable LORS and the Energy Commission s Decision have been met in the area of facility design. The project owner shall provide the CPM a copy of the Certificate of

[5] The Sections, Chapters, Appendices and Tables mentioned in these conditions of certification, unless otherwise stated, refer to the Sections, Chapters, Appendices and Tables of the 1998 California Building Code (CBC). The CBC in effect is that edition, which has been adopted by the California Building Standards Commission and published at least 180 days previously.

[6] The CBO is the CEC s duly appointed representative, who may be the City or County Chief Building Official, or other appointed representative.

[7] For all times specified in this chapter, except where specifically precluded, the project owner and CBO may mutually agree to a lesser or greater number of days.

Occupancy within 30 days of receipt from the CBO [1998 CBC, Section 109 — Certificate of Occupancy].

GEN-2 The project owner shall furnish to the CPM and to the CBO a schedule of facility design submittals, a Master Drawing List, and a Master Specifications List. The schedule shall contain a description of, and a list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see a list of major structures and equipment in **Table 1: Major Equipment List** below). To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested.

Table 1 Major Equipment List

Equipment/System	Qty	Size/Capacity	Service/Remarks
Combustion Turbine Generators	1	LM 6000 SPT	Water injection, sprint boost, inlet spray mist
Aqueous Ammonia Storage Tank	1	4,000 gal	19 wt % ammonia solution for NO_X control
SCR System including Ammonia Injection Package	1	NOx reduction	NOx control
Oxidation Catalyst	1	CO reduction	VOC and CO control
NO_X and Sprint water injection Packages	1	50 gpm	Dl water injection system (both NOx and Sprint)
Fuel Gas Filter Separator	1	7,200 SCFM	Natural gas fuel (LM6000)
Fuel Gas Compressor	1	7,200 SCFM	475 psi discharge
Fin Fan Cooler for LM6000	1	0.20 MMBTUH	Lube oil cooling (one 100% capacity)
SCR Exhaust Stack	1	12 dia. 140 high	
Continuous Emissions Monitoring System (CEMS)	1	NOx, CO, and O_2	SCR Stack

***All capacities and sizes are approximate and may change during project final design.**

Verification: At least sixty (60) days prior to the start of grading, the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The project owner shall provide schedule updates in the Monthly Compliance Report.

GEN-3 The project owner shall make payments to the CBO for design review, plan check and construction inspection, equivalent to the fees listed in the 1998 CBC, Chapter 1, Section 107 and Table 1-A, Building Permit Fees; Appendix Chapter 33, Section 3310 and Table A-33-A, Grading Plan Review Fees; and Table A-33-B, Grading Permit Fees. If the City and County of San Francisco has adjusted the CBC fees for design review, plan check and construction inspection, the project owner shall pay the adjusted fees.

Verification: The project owner shall make the required payments to the CBO at the time of submittal of the plans, design calculations, specifications, or soil reports. The project owner shall send a copy of the CBO s receipt of payment to the CPM in the next Monthly Compliance Report indicating that the applicable fees have been paid.

GEN-4 Prior to the start of grading, the project owner shall assign a California registered architect, structural engineer or civil engineer, as a resident engineer (RE), to be in general responsible charge of the project [Building Standards Administrative Code (Cal. Code Regs., tit. 24, ⁄ 4-209, Designation of Responsibilities)]. All transmission facilities (lines, switchyards, switching stations, and substations) are handled in Conditions of Certification TSE-1, TSE-2 and TSE-3 in the **Transmission System Engineering** Section of this document.

Protocol: The RE may delegate responsibility for portions of the project to other registered engineers. Registered mechanical and electrical engineers may be delegated responsibility for mechanical and electrical portions of the project respectively. A project may be divided into parts, provided each part is clearly defined as a distinct unit. Separate assignment of general responsible charge may be made for each designated part.

The RE shall:

1. Monitor construction progress to ensure compliance with LORS;
2. Ensure that construction of all the facilities conforms in every material respect to the applicable LORS, these Conditions of Certification, approved plans, and specifications;
3. Prepare documents to initiate changes in the approved drawings and specifications when directed by the project owner or as required by conditions on the project;
4. Be responsible for providing the project inspectors and testing agency(ies) with complete and up-to-date set(s) of stamped drawings, plans, specifications and any other required documents;
5. Be responsible for the timely submittal of construction progress reports to the CBO from the project inspectors, the contractor, and other engineers who have been delegated responsibility for portions of the project; and
6. Be responsible for notifying the CBO of corrective action or the disposition of items noted on laboratory reports or other tests as not conforming to the approved plans and specifications.

The RE shall have the authority to halt construction and to require changes or remedial work, if the work does not conform to applicable requirements.

If the RE or the delegated engineers are reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO s approval of the new engineer.

Verification: At least thirty (30) days prior to the start of grading, the project owner shall submit to the CBO for review and approval, the name, qualifications and registration number of the RE and any other delegated engineers assigned to the project. The project owner shall notify the CPM of the CBO s approvals of the RE and other delegated engineer(s) within five days of the approval.

If the RE or the delegated engineer(s) are subsequently reassigned or replaced, the project owner has five days in which to submit the name, qualifications, and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO s approval of the new engineer within five days of the approval.

GEN-5 Prior to the start of grading, the project owner shall assign at least one of each of the following California registered engineers to the project: A) a civil engineer; B) a geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering; C) a design engineer, who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; D) a mechanical engineer; and E) an electrical engineer. [California Business and Professions Code section 6704 et seq., and sections 6730 and 6736, require state registration to practice as a civil engineer or structural engineer in California.] All transmission facilities (lines, switchyards, switching stations, and substations) are handled in Conditions of Certification TSE-1, TSE-2 and TSE-3 in the **Transmission System Engineering** Section of this document.

The tasks performed by the civil, mechanical, electrical or design engineers may be divided between two or more engineers, as long as each engineer is responsible for a particular segment of the project (e.g., proposed earthwork, civil structures, power plant structures, equipment support). No segment of the project shall have more than one responsible engineer. The transmission line may be the responsibility of a separate California registered electrical engineer.

The project owner shall submit to the CBO for review and approval, the names, qualifications and registration numbers of all engineers assigned to the project. [1998 CBC, Section 104.2, Powers and Duties of Building Official].

If any one of the designated engineers is subsequently reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO s approval of the new engineer.

Protocol A: The civil engineer shall:

1. Design, or be responsible for design, stamp, and sign all plans, calculations, and specifications for proposed site work, civil works, and related facilities. At a minimum, these include: grading, site preparation, excavation, compaction, construction of secondary containment, foundations, erosion and sedimentation control structures, drainage facilities, underground utilities, culverts, site access roads, and sanitary sewer systems; and
2. Provide consultation to the RE during the construction phase of the project, and recommend changes in the design of the civil works facilities and changes in the construction procedures.

Protocol B: The geotechnical engineer or civil engineer, experienced and knowledgeable in the practice of soils engineering, shall:

1. Review all the engineering geology reports, and prepare final soils grading report;
2. Prepare the soils engineering reports required by the 1998 CBC, Appendix Chapter 33, Section 3309.5 — Soils Engineering Report, and Section 3309.6 — Engineering Geology Report;
3. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 1998 CBC, Appendix Chapter 33, section 3317, Grading Inspections;
4. Recommend field changes to the civil engineer and RE;
5. Review the geotechnical report, field exploration report, laboratory tests, and engineering analyses detailing the nature and extent of the site soils that may be susceptible to liquefaction, rapid settlement or collapse when saturated under load; and
6. Prepare reports on foundation investigation to comply with the 1998 CBC, Chapter 18 section 1804, Foundation Investigations.

This engineer shall be authorized to halt earthwork and to require changes; if site conditions are unsafe or do not conform with predicted conditions used as a basis for design of earthwork or foundations. [1998 CBC, section 104.2.4, Stop orders.]

Protocol C: The design engineer shall:

1. Be directly responsible for the design of the proposed structures and equipment supports;
2. Provide consultation to the RE during design and construction of the project;
3. Monitor construction progress to ensure compliance with LORS;
4. Evaluate and recommend necessary changes in design; and
5. Prepare and sign all major building plans, specifications and calculations.

Protocol D: The mechanical engineer shall be responsible for, and sign and stamp a statement with, each mechanical submittal to the CBO, stating that the proposed final design plans, specifications, and calculations conform with all of the mechanical engineering design requirements set forth in the Energy Commission s Decision.

Protocol E: The electrical engineer shall:

1. Be responsible for the electrical design of the project; and
2. Sign and stamp electrical design drawings, plans, specifications, and calculations.

Verification: At least thirty (30) days prior to the start of grading, the project owner shall submit to the CBO for review and approval, the names, qualifications and registration numbers of all the responsible engineers assigned to the project. The project owner shall notify the CPM of the CBO s approvals of the engineers within five days of the approval.

If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the name, qualifications, and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO s approval of the new engineer within five days of the approval.

GEN-6 Prior to the start of an activity requiring special inspection, the project owner shall assign to the project, a qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 1998 CBC, Chapter 17, Section 1701,

Special Inspections, Section, 1701.5 Type of Work (requiring special inspection), and Section 106.3.5, Inspection and observation program. All transmission facilities (lines, switchyards, switching stations, and substations) are handled in Conditions of Certification TSE-1, TSE-2 and TSE-3 in the **Transmission System Engineering** Section of this document.

Protocol: The special inspector shall:

1. Be a qualified person who shall demonstrate competence, to the satisfaction of the CBO, for inspection of the particular type of construction requiring special or continuous inspection;
2. Observe the work assigned for conformance with the approved design drawings and specifications;
3. Furnish inspection reports to the CBO and RE. All discrepancies shall be brought to the immediate attention of the RE for correction, then, if uncorrected, to the CBO and the CPM for corrective action; and
4. Submit a final signed report to the RE, CBO, and CPM, stating whether the work requiring special inspection was, to the best of the inspector s knowledge, in conformance with the approved plans and specifications and the applicable provisions of the applicable edition of the CBC.

A certified weld inspector, certified by the American Welding Society (AWS), and/or American Society of Mechanical Engineers (ASME) as applicable, shall inspect welding performed on-site requiring special inspection (including structural, piping, tanks and pressure vessels).

Verification: At least 15 days prior to the start of an activity requiring special inspection, the project owner shall submit to the CBO for review and approval, with a copy to the CPM, the name(s) and qualifications of the certified weld inspector(s), or other certified special inspector(s) assigned to the project to perform one or more of the duties set forth above. The project owner shall also submit to the CPM a copy of the CBO s approval of the qualifications of all special inspectors in the next Monthly Compliance Report.

If the special inspector is subsequently reassigned or replaced, the project owner has five days in which to submit the name and qualifications of the newly assigned special inspector to the CBO for approval. The project owner shall notify the CPM of the CBO s approval of the newly assigned inspector within five days of the approval.

GEN-7 The project owner shall keep the CBO informed regarding the status of engineering and construction. If any discrepancy in design and/or construction is discovered, the project owner shall document

the discrepancy and recommend the corrective action required. The discrepancy documentation shall be submitted to the CBO for review and approval. The discrepancy documentation shall reference this condition of certification and, if appropriate, the applicable sections of the CBC and/or other LORS.

Verification: The project owner shall submit monthly construction progress reports to the CBO and CPM. The project owner shall transmit a copy of the CBO s approval or disapproval of any corrective action taken to resolve a discrepancy to the CPM within 15 days. If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action to obtain CBO s approval.

GEN-8 The project owner shall obtain the CBO s final approval of all completed work. The project owner shall request the CBO to inspect the completed structure and review the submitted documents. When the work and the as-built and as graded plans conform to the approved final plans, the project owner shall notify the CPM regarding the CBO s final approval. The marked up as-built drawings for the construction of structural and architectural work shall be submitted to the CBO. Changes approved by the CBO shall be identified on the as-built drawings [1998 CBC, Section 108, Inspections].

Verification: Within 15 days of the completion of any work, the project owner shall submit to the CBO, with a copy to the CPM, (a) a written notice that the completed work is ready for final inspection, and (b) a signed statement that the work conforms to the final approved plans.

GEN-9 The project owner shall file a closure/decommissioning plan with the San Francisco Airport Commission and the CPM for review and approval at least 12 months (or other mutually agreed to time) prior to commencing the closure activities. If the project is abandoned before construction is completed, the project owner shall return the site to its original condition.

Protocol: The closure plan shall include a discussion of the following:

1. The proposed closure/decommissioning activities for the project and all appurtenant facilities constructed as part of the project;
2. All applicable LORS, all local/regional plans, and a discussion of the conformance of the proposed decommissioning activities to the applicable LORS and local/regional plans;

3. Activities necessary to restore the site if the decommissioning plan requires removal of all equipment and appurtenant facilities; and

4. Closure/decommissioning alternatives, other than complete restoration of the site.

Verification: At least 12 months prior to closure or decommissioning activities, the project owner shall file a copy of the closure/decommissioning plan with the San Francisco Airport Commission and the CPM for review and approval. Prior to the submittal of the closure plan, a meeting shall be held between the project owner and the CPM for discussing the specific contents of the plan.

CIVIL-1 Prior to the start of site grading, the project owner shall submit to the CBO for review and approval the following:

1. Design of the proposed drainage structures and the grading plan;

2. An erosion and sedimentation control plan;

3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and

4. Soils report as required by the 1998 CBC, Appendix Chapter 33, Section 3309.5, Soils Engineering Report and Section 3309.6, Engineering Geology Report.

Verification: At least 15 days prior to the start of site grading, the project owner shall submit the documents described above to the CBO for review and approval. In the next Monthly Compliance Report following the CBO s approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.

CIVIL-2 The resident engineer shall, if appropriate, stop all earthwork and construction in the affected areas when the responsible geotechnical engineer or civil engineer experienced and knowledgeable in the practice of soils engineering identifies unforeseen adverse soil or geologic conditions. The project owner shall submit modified plans, specifications and calculations to the CBO based on these new conditions. The project owner shall obtain approval from the CBO before resuming earthwork and construction in the affected area. [1998 CBC, Section 104.2.4, Stop orders].

Verification: The project owner shall notify the CPM, within five days, when earthwork and construction is stopped as a result of unforeseen

adverse geologic/soil conditions. Within five days of the CBO s approval, the project owner shall provide to the CPM a copy of the CBO s approval to resume earthwork and construction in the affected areas.

CIVIL-3 The project owner shall perform inspections in accordance with the 1998 CBC, Chapter 1, Section 108, Inspections; Chapter 17, Section 1701.6, Continuous and Periodic Special Inspection; and Appendix Chapter 33, Section 3317, Grading Inspection. All plant site-grading operations shall be subject to inspection by the CBO and the CPM.

Protocol: If, in the course of inspection, it is discovered that the work is not being done in accordance with the approved plans, the discrepancies shall be reported immediately to the resident engineer, the CBO, and the CPM. The project owner shall prepare a written report detailing all discrepancies and non-compliance items, and the proposed corrective action, and send copies to the CBO and the CPM.

Verification: Within five days of the discovery of any discrepancies, the resident engineer shall transmit to the CBO and the CPM a Non-Conformance Report (NCR), and the proposed corrective action. Within five days of resolution of the NCR, the project owner shall submit the details of the corrective action to the CBO and the CPM. A list of NCRs, for the reporting month, shall also be included in the following Monthly Compliance Report.

CIVIL-4 After completion of finished grading and erosion and sedimentation control and drainage facilities, the project owner shall obtain the CBO s approval of the final as-graded grading plans, and final as-built plans for the erosion and sedimentation control facilities [1998 CBC, Section 109, Certificate of Occupancy].

Verification: Within 30 days of the completion of the erosion and sediment control mitigation and drainage facilities, the project owner shall submit to the CBO the responsible civil engineer s signed statement that the installation of the facilities and all erosion control measures were completed in accordance with the final approved combined grading plans, and that the facilities are adequate for their intended purposes. The project owner shall submit a copy of this report to the CPM in the next Monthly Compliance Report.

CIVIL-5 The project owner shall design and install the natural gas pipeline in accordance with the appropriate U.S. Department of Transportation (DOT), Title 49, Code of Federal Regulations (CFR) Chapter 1, Part

192 Transportation of Natural and other Gas by Pipeline: Minimum Federal Safety Standards , and the California Public Utilities Commission, General Order 112-E (CPUC GO 112-E). Prior to the start of any increment of pipeline construction, the project owner shall obtain CBO approval of the proposed final design drawings, specifications, calculations, and applicable quality control procedures.

Protocol: The project owner shall ensure that:

1. The responsible engineer, registered to practice civil engineering in the State of California, shall submit a signed and stamped statement to the CBO that the proposed final designs, plans, specifications, and calculations conform with all of the piping requirements set forth in the Commission decision.
2. The depth of cover for the pipeline shall meet the requirements of the applicable DOT-192 and CPUC G.O.-112E, as necessary.
3. Upon completion of construction, the project owner shall request the CBO s inspection approval of said construction.

Verification: Thirty (30) days prior to the start of pipeline construction, the project owner shall submit to the CBO for review and approval, the final design plans, specifications, calculations and quality control procedures for the natural gas pipeline construction. The project owner shall include a copy of the signed and stamped engineer s certification of conformance with the applicable requirements. The project owner shall submit to the CPM a copy of the signed and stamped engineer s certification of compliance with applicable LORS and standards in the Monthly Compliance Report following submittal of same to the CBO. The project owner shall submit to the CPM a copy of the CBO s inspection approvals in the Monthly Compliance Report following completion of construction inspection.

STRUC-1 Prior to the start of any increment of construction, the project owner shall submit to the CBO for review and approval the proposed lateral force procedures for project structures and the applicable designs, plans and drawings for project structures. Proposed lateral force procedures, designs, plans and drawings shall be those for:

1. Major project structures;
2. Major foundations, equipment supports and anchorage;
3. Large field fabricated tanks; and
4. Turbine/generator pedestal.

In addition, the project owner shall, prior to the start of any increment of construction, get approval from the CBO of the lateral force

procedures proposed for project structures to comply with the lateral force provisions of the CBC.

Protocol: The project owner shall:

1. Obtain approval from the CBO of lateral force procedures proposed for project structures;
2. Obtain approval from the CBO for the final design plans, specifications, calculations, soils reports, and applicable quality control procedures. If there are conflicting requirements, the more stringent shall govern (i.e., highest loads, or lowest allowable stresses shall govern). All plans, calculations, and specifications for foundations that support structures shall be filed concurrently with the structure plans, calculations, and specifications [1998 CBC, Section 108.4, Approval Required];
3. Submit to the CBO the required number of copies of the structural plans, specifications, calculations, and other required documents of the designated major structures at least 90 days (or a lesser number of days mutually agreed to by the project owner and the CBO), prior to the start of on-site fabrication and installation of each structure, equipment support, or foundation [1998 CBC, Section 106.4.2, Retention of plans and Section 106.3.2, Submittal documents.]; and
4. Ensure that the final plans, calculations, and specifications clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design. The final designs, plans, calculations and specifications shall be signed and stamped by the responsible design engineer [1998 CBC, Section 106.3.4, Architect or Engineer of Record].

Verification: At least thirty (30) days prior to the start of any increment of construction, the project owner shall submit to the CBO, with a copy to the CPM, the responsible design engineer s signed statement that the final design plans, specifications and calculations conform with all of the requirements set forth in the Energy Commission s Decision.

The project owner shall submit to the CPM a copy of a statement from the CBO that the proposed structural plans, specifications, and calculations have been approved and are in conformance with the requirements set forth in the applicable LORS.

STRUC-2 The project owner shall submit to the CBO the required number of sets of the following:

1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters);
2. Concrete pour sign-off sheets;
3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques);
4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and
5. Reports covering other structure activities requiring special inspections shall be in accordance with the 1998 CBC, Chapter 17, Section 1701, Special Inspections, Section 1701.5, Type of Work (requiring special inspection), Section 1702, Structural Observation and Section 1703, Nondestructive Testing.

Verification: If a discrepancy is discovered in any of the above data, the project owner shall, within five days, prepare and submit an NCR describing the nature of the discrepancies to the CBO, with a copy of the transmittal letter to the CPM. The NCR shall reference the condition(s) of certification and the applicable CBC chapter and section. Within five days of resolution of the NCR, the project owner shall submit a copy of the corrective action to the CBO and the CPM.

The project owner shall transmit a copy of the CBO s approval or disapproval of the corrective action to the CPM within 15 days. If disapproved, the project owner shall advise the CPM, within five days, of the reason for disapproval, and submit the revised corrective action for the CBO s approval.

STRUC-3 The project owner shall submit to the CBO design changes to the final plans required by the 1998 CBC, Chapter 1, Section 106.3.2, Submittal documents, and Section 106.3.3, Information on plans and specifications, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give the CBO prior notice of the intended filing.

Verification: On a schedule suitable to the CBO, the project owner shall notify the CBO of the intended filing of design changes, and shall submit the required number of sets of revised drawings and the required number of copies of the other above-mentioned documents to the CBO, with a copy of the transmittal letter to the CPM. The project owner shall notify the CPM, via

the Monthly Compliance Report, when the CBO has approved the revised plans.

STRUC-4 Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in Chapter 3, Table 3-E of the 1998 CBC shall, at a minimum, be designed to comply with Occupancy Category 2 of the 1998 CBC. Chapter 16, Table 16—K of the 1998 CBC requires use of the following seismic design criteria: I˚=˚1.25, I_p = 1.5 and I_w = 1.15.

Verification: At least thirty (30) days prior to the start of installation of the tanks or vessels containing the above specified quantities of highly toxic or explosive substances that would be hazardous to the safety of the general public if released, the project owner shall submit to the CBO for review and approval, final design plans, specifications, and calculations, including a copy of the signed and stamped engineer s certification.

The project owner shall send copies of the CBO design approvals to the CPM in the following Monthly Compliance Report. The project owner shall also transmit a copy of the CBO s inspection approvals to the CPM in the Monthly Compliance Report following completion of any inspection.

MECH-1 Prior to the start of any increment of piping construction, the project owner shall submit, for CBO review and approval, the proposed final design drawings, specifications and calculations for each plant piping system (excluding domestic water, refrigeration systems, and small bore piping, i.e., piping and tubing with a diameter less than two and one-half inches). The submittal shall also include the applicable QA/QC procedures. The project owner shall design and install all piping, other than domestic water, refrigeration, and small bore piping in accordance with the applicable edition of the CBC. Upon completion of construction of any piping system, the project owner shall request the CBO s inspection approval of said construction [1998 CBC, Section 106.3.2, Submittal documents, Section 108.3, Inspection Requests].

Protocol: The responsible mechanical engineer shall submit a signed and stamped statement to the CBO when:

1. The proposed final design plans, specifications and calculations conform with all of the piping requirements set forth in the Energy Commission s Decision; and
2. All of the other piping systems, except domestic water, refrigeration systems and small bore piping have been designed, fabricated and installed in accordance with all applicable

ordinances, regulations, laws and industry standards, including, as applicable:

- American National Standards Institute (ANSI) B31.1 (Power Piping Code);
- ANSI B31.2 (Fuel Gas Piping Code);
- ANSI B31.3 (Chemical Plant and Petroleum Refinery Piping Code);
- ANSI B31.8 (Gas Transmission and Distribution Piping Code); and
- Specific City/County code.

The CBO may require the project owner to employ special inspectors to report directly to the CBO to monitor shop fabrication or equipment installation [1998 CBC, Section 104.2.2, Deputies].

Verification: At least thirty (30) days prior to the start of any increment of piping construction, the project owner shall submit to the CBO for approval, with a copy of the transmittal letter to the CPM, the above listed documents for that increment of construction of piping systems, including a copy of the signed and stamped engineer s certification of conformance with the Energy Commission s Decision. The project owner shall transmit a copy of the CBO s inspection approvals to the CPM in the Monthly Compliance Report following completion of any inspection.

MECH-2 For all pressure vessels installed in the plant, the project owner shall submit to the CBO and California Occupational Safety and Health Administration (Cal-OSHA), prior to operation, the code certification papers and other documents required by the applicable LORS. Upon completion of the installation of any pressure vessel, the project owner shall request the appropriate CBO and/or Cal-OSHA inspection of said installation [1998˚CBC, Section 108.3 — Inspection Requests].

The project owner shall:

1. Ensure that all boilers and fired and unfired pressure vessels are designed, fabricated and installed in accordance with the appropriate section of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or other applicable code. Vendor certification, with identification of applicable code, shall be submitted for prefabricated vessels and tanks; and
2. Have the responsible design engineer submit a statement to the CBO that the proposed final design plans, specifications and

calculations conform to all of the requirements set forth in the appropriate ASME Boiler and Pressure Vessel Code or other applicable codes.

Verification: At least thirty (30) days prior to the start of on-site fabrication or installation of any pressure vessel, the project owner shall submit to the CBO for review and approval, final design plans, specifications and calculations, including a copy of the signed and stamped engineer s certification, with a copy of the transmittal letter to the CPM.

The project owner shall send copies of the CBO design approvals to the CPM in the following Monthly Compliance Report. The project owner shall also transmit a copy of the CBO s and/or Cal-OSHA inspection approvals to the CPM in the Monthly Compliance Report following completion of any inspection.

MECH-3 Prior to the start of construction of any heating, ventilating, air conditioning (HVAC) or refrigeration system, the project owner shall submit to the CBO for review and approval the design plans, specifications, calculations and quality control procedures for that system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer s data sheets.

Protocol: The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the applicable edition of the CBC. Upon completion of any increment of construction, the project owner shall request the CBO s inspection and approval of said construction. The final plans, specifications and calculations shall include approved criteria, assumptions and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans, drawings and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications and calculations conform with the applicable LORS [1998 CBC, Section 108.7, Other Inspections; Section 106.3.4, Architect or Engineer of Record].

Verification: At least thirty (30) days prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the applicable edition of the CBC, with a copy of the transmittal letter to the CPM.

The project owner shall send copies of CBO comments and approvals to the CPM in the next Monthly Compliance Report. The project owner shall

transmit a copy of the CBO s inspection approvals to the CPM in the Monthly Compliance Report following completion of any inspection.

MECH-4 Prior to the start of each increment of plumbing construction, the project owner shall submit for CBO s approval the final design plans, specifications, calculations, and QA/QC procedures for all plumbing systems, potable water systems, drainage systems (including sanitary drain and waste), toilet rooms, building energy conservation systems, and temperature control and ventilation systems, including water and sewer connection permits issued by the local agency. Upon completion of any increment of construction, the project owner shall request the CBO s inspection approval of said construction [1998 CBC, Section 108.3, Inspection Requests, Section 108.4, Approval Required].

Protocol: The project owner shall design, fabricate and install:

1. Plumbing, potable water, all drainage systems, and toilet rooms in accordance with Title 24, California Code of Regulations, Division 5, Part 5 and the California Plumbing Code (or other relevant section(s) of the currently adopted California Plumbing Code and Title 24, California Code of Regulations); and
2. Building energy conservation systems and temperature control and ventilation systems in accordance with Title 24, California Code of Regulations, Division 5, Chapter 2-53, Part 2.

The final plans, specifications and calculations shall clearly reflect the inclusion of approved criteria, assumptions and methods used to develop the design. In addition, the responsible mechanical engineer shall stamp and sign all plans, drawings and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications and calculations conform with all of the requirements set forth in the Energy Commission s Decision.

Verification: At least thirty (30) days prior to the start of construction of any of the above systems, the project owner shall submit to the CBO the final design plans, specifications and calculations, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the applicable edition of the CBC, and send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.

The project owner shall transmit a copy of the CBO s inspection approval to the CPM in the next Monthly Compliance Report following completion of that increment of construction.

ELEC-1 For the 480 volts and higher systems, the project owner shall not begin any increment of electrical construction until plans for that

increment have been approved by the CBO. These plans, together with design changes and design change notices, shall remain on the site for one year after completion of construction. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS [1998 CBC, Section 108.4, Approval Required, and Section 108.3, Inspection Requests.] All transmission facilities (lines, switchyards, switching stations, and substations) are handled in Conditions of Certification TSE-1, TSE-2 and TSE-3 in the **Transmission System Engineering** Section of this document.

Protocol: The following activities shall be reported in the Monthly Compliance Report:

1. receipt or delay of major electrical equipment;
2. testing or energization of major electrical equipment; and
3. the number of electrical drawings approved, submitted for approval, and still to be submitted.

Verification: At least thirty (30) days prior to the start of each increment of electrical construction, the project owner shall submit to the CBO for review and approval the final design plans, specifications and calculations for electrical equipment and systems 480 volts and greater, including a copy of the signed and stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS, and send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.

ELEC-2 The project owner shall submit to the CBO the required number of copies of items A and B for review and approval and one copy of item C [CBC 1998, Section 106.3.2, Submittal documents.] All transmission facilities (lines, switchyards, switching stations, and substations) are handled in Conditions of Certification TSE-1, TSE-2 and TSE-3 in the **Transmission System Engineering** Section of this document.

Protocol A: Final plant design plans to include:

1. one-line diagrams for the 13.8 kV, 4.16 kV and 480 V systems;
2. system grounding drawings;
3. general arrangement or conduit drawings; and
4. the plans as required by the CBO.

Protocol B: Final plant calculations to establish:

1. short-circuit ratings of plant equipment;

2. ampacity of feeder cables;
3. voltage drop in feeder cables;
4. system grounding requirements;
5. coordination study calculations for fuses, circuit breakers and protective relay settings for the 13.8 kV, 4.16 kV and 480 V systems;
6. system grounding requirements;
7. lighting energy calculations; and
8. other reasonable calculations as customarily required by the CBO.

Protocol C: A signed statement by the registered electrical engineer certifying that the proposed final design plans and specifications conform to requirements set forth in the Energy Commission Decision.

Verification: At least thirty (30) days prior to the start of each increment of electrical equipment installation, the project owner shall submit to the CBO for review and approval the final design plans, specifications and calculations, for electrical equipment and systems 480 volts and greater enumerated above, including a copy of the signed and stamped statement from the responsible electrical engineer certifying compliance with the applicable LORS. The project owner shall send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.

B. POWER PLANT EFFICIENCY

The Energy Commission makes findings as to whether energy use by the United Golden Gate Power Project, Phase I (UGGPP-1) will result in significant adverse impacts on the environment, as defined in the California Environmental Quality Act (CEQA). If the Energy Commission finds that the UGGPP s consumption of energy creates a significant adverse impact, it must determine whether there is any feasible mitigation measures that could eliminate or minimize the impacts. In this analysis, we address the issue of inefficient and unnecessary consumption of energy.

SUMMARY OF THE EVIDENCE

Applicant s witness sponsored the relevant section of the AFC to establish the Project s efficiency. (Ex. 1; Ex. 12, Fredrick.)

Staff testified that under expected project conditions, electricity will be generated at a full load efficiency of 38 to 39 percent LHV (El Paso 2000a, AFC Appendix A-1; 2000b, Appendices A-1, A-2, A-3). The witness compared the Project to the average fuel efficiency of a typical utility company baseload power plant, commonly used for peaking power, at approximately 35˚percent LHV. He concluded that the Project s fuel efficiency compares favorably to other possible peaking technologies. (Ex. 10, p. 306.)

The Staff witness pointed out that the Project objectives are; 1) to generate temporary peaking power to the PG&E grid that serves the San Francisco peninsula corridor during peak demand periods, and 2) to provide black start capability. Power will be sold on the spot market or via bilateral contracts. (Ex. 10, p. 308.)

Applicant addresses the efficiency of alternative generating technologies in its application (AFC ⁄ 3.11.3.2). Geothermal, hydroelectric and biomass were all considered. The Project s primary objective is to compete as a merchant peaking plant (AFC ⁄⁄ 3.4, 3.9.1.2, 4.3.3). Given the project objectives, location and air pollution control requirements, Staff agrees with the applicant that only natural gas-burning, simple-cycle gas turbines are feasible. The only real alternative, a combined cycle gas turbine power plant, could not be brought on-line in the required time frame. In the near future, Applicant plans to build a 570 MW combined cycle power plant incorporating this peaker.

The Staff analysis concluded that the project configuration (single-train simple cycle) and generating equipment (LM6000 Enhanced Sprint gas turbine) chosen represent the most efficient feasible combination to satisfy the project objectives. There are no alternatives that could significantly reduce energy consumption. 10, p. 310.)

Staff also noted that the UGGPP-1, if constructed and operated as proposed, would generate approximately 50˚MW of electric power at an overall project fuel efficiency between 38˚and 39˚percent. While it will consume substantial amounts of energy, it will do so in the most efficient manner practicable. It will not create significant adverse effects on energy supplies or resources, will not require additional sources of energy supply, and will not consume energy in a wasteful or inefficient manner. Staff concluded that the UGGPP would present no significant adverse impacts upon energy resources. (Id.)

No cumulative impacts on energy resources are likely. Facility closure would not likely present significant impacts on electric system efficiency. (Ex. 10. p. 311.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, the Commission makes the following findings:

1. The United Golden Gate Power Plant Project, Phase 1 will not create a significant demand for natural gas in California.

2. The Project will not create a substantial increase in demand for natural gas in California.

3. The Project will not require the development of any new sources of energy.

4. The Project will have no significant adverse impacts on energy resources.

5. Given project objectives, location, and air pollution control requirements, only natural gas fired combustion technologies are feasible for this project.

6. The UGGPP will consist of one General Electric LM6000 Sprint combustion turbine generator with inlet air spray misting producing up to 50.4˚MW. The gas turbine will be equipped with water injection and selective catalytic reduction (SCR) to control air emissions, and will have dual fuel capability

The Commission therefore concludes that the United Golden Gate Power Plant Project, Phase 1 will not cause any significant adverse impacts to energy supplies or energy resources. The Project will conform with all applicable laws, ordinances, regulations, and standards (LORS) relating to power plant efficiency as identified in the pertinent portions of **APPENDIX A** of this Decision.

No Conditions of Certification are proposed concerning the topic of Power Plant Efficiency.

C. POWER PLANT RELIABILITY

In this analysis, The Commission addresses the reliability issues of the project to determine if the power plant is likely to be built in accordance with typical industry norms for reliability of power generation. This level of reliability is useful as a benchmark because the resulting project would likely not degrade the overall reliability of the electric system it serves.

SUMMARY OF THE EVIDENCE

Applicant s witness Jesse Fredrick sponsored the portions of Exhibit 1 and related documents which establish the reliability of the Project. (Ex. 12, Fredrick; Ex. 1, section 4.3.)

A panel of Staff experts testified that a reliable power plant is one that is available when called upon to operate. (Ex. 10, pp. 297-300.) Throughout its intended life, the UGGPP will be expected to perform reliably in peaking duty. Peaking power plant systems must be able to operate for only a few hours per day without shutting down for maintenance or repairs. The plant will be shut down every night, on weekends, and in the fall, winter and spring, allowing time for maintenance and repairs. Achieving acceptable reliability is accomplished by ensuring adequate levels of equipment availability, plant maintainability, fuel and water availability, and resistance to natural hazards. The testimony stated that Staff examined these factors for the Project and compared them to industry norms. Where the norms compare favorably, Staff concluded that the UGGPP will be as reliable as other peaking power plants on the electric system, and will therefore not degrade system reliability. (Ex.10, p. 298.)

After reviewing the various features and systems of the Project, Staff concluded that Applicant s prediction of an equivalent availability factor in the range of 95 percent, is achievable in light of the industry norm of 89 to 90 percent for similar

plants operated year-round, Applicant s prior experience with other similar power plants, and the seasonal nature of the proposed plant s operation. Based on a review of the proposal, Staff concluded that the plant will be built and operated in a manner consistent with industry norms for reliable operation. This should provide an adequate level of reliability. No Conditions of Certification are proposed. (Ex. 10, p. 302.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, the Commission makes the following findings:

1. The United Golden Gate Power Project, Phase 1 will ensure equipment availability by implementing quality assurance/quality control programs and by providing adequate redundancy of auxiliary equipment to prevent unplanned off-line events.
2. There is adequate fuel and water availability for project operations.
3. Neither earthquakes nor flooding present significant risks to the project s safety or reliability.
4. The project s estimated 95 percent availability factor is consistent with, or exceeds industry norms for power plant reliability.
5. The Project will perform reliably as a peaker plant and is not likely to cause significant impacts to electric system reliability.

The Commission, therefore, concludes that the Project will not have an adverse effect on system reliability. No Conditions of Certification are required for this topic. To ensure implementation of the QA/QC program described above, appropriate conditions of certification are included within the topic of **FACILITY DESIGN.**

D. TRANSMISSION SYSTEM ENGINEERING

The Transmission System Engineering (TSE) analysis provides the basis for the findings in the Energy Commission s decision. This assessment indicates whether or not the transmission facilities associated with the proposed project conform to all applicable laws, ordinances, regulations and standards (LORS)[8] required for safe and reliable electric power transmission.

The El Paso Merchant Energy Company (El Paso), the applicant, proposes to connect their project, the United Golden Gate Power Project, Phase I to the existing United Cogeneration Inc (UCI) switchyard and Pacific Gas and Electric s (PG&E) transmission system. The California Independent System Operator (Cal-ISO) is responsible for ensuring electric system reliability for all participating transmission owning utilities and determines both the standards necessary to achieve reliability and whether a proposed project conforms with those standards. The Energy Commission will rely heavily on the Cal-ISO s determinations to make its finding related to applicable reliability standards, the need for additional transmission facilities, and environmental review of the whole of the project. The Cal-ISO will provide testimony at the Energy Commission s hearing planned for February 23, 2001.

SUMMARY OF THE EVIDENCE

The UGGPP-1 will consist of one 51-megawatt (MW) nominal output unit. The unit will connect to a 13.8 kV to 115 kV step-up transformer in the power plant switchyard. The power plant switchyard will connect via a 150-foot long single circuit 115 kV line to the existing UCI switchyard. A 115 kV tap (Ex. 17, p. 2) bus work and miscellaneous equipment will be installed inside the fence line of

[8] The applicable LORS include the California Public Utilities Commission (CPUC) General Order 95 (GO-95), CPUC Rule 21, Western Systems Coordinating Council (WSCC) Reliability Criteria, North American Electric Reliability Council (NERC) Planning Standards, Cal-ISO Reliability Criteria, Cal-ISO Scheduling Protocols and Dispatch Protocols, and Cal-ISO Participating Generator Agreement.

the existing UCI switchyard. Staff testified that this configuration for the switchyard and interconnection is acceptable. (Ex. 10, p. 313.)

Applicant s witness Jesse Fredrick testified that the Project interconnection and transmission requirements were evaluated and that with the Conditions of Certification proposed by Staff, the Project will not have any significant adverse impacts upon the transmission system or the environment. He supported this conclusion by sponsoring section 3.6 of the AFC (Ex. 1; Ex. 12, Fredrick.)

Staff testimony makes clear that a final interconnection study is required from the Independent System Operator (Cal-ISO) to confirm the preliminary Staff assessment on transmission system engineering for the Project. However, the preliminary Staff review indicates that no significant additional transmission facilities will be required for the Project outside the existing fence lines. (Ex. 10, p 314.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find and conclude as follows:

1. PG&E has performed a Simplified System Impact/ Facilities Study to analyze any potential reliability and congestion impacts which could occur when UGGPP-1 interconnects to the grid.

2. The California Independent System Operator has determined that interconnecting the United Golden Gate Power Project will not require the construction of significant additional transmission facilities. (Ex. 15.)

3. The determinations of the California Independent System Operator are based on its review of the Preliminary Facilities Study, the Simplified System Impact/Facilities Study and other referenced analysis performed by the California Independent System Operator and by Pacific Gas and Electric Company.

4. A Facilities Study review contained in Cal-ISO and the Staff testimony of record establishes the acceptability of interconnecting the Project to the system.

We therefore conclude that with the implementation of the various mitigation measures specified in this Decision, the proposed transmission interconnect for the Project will not contribute to significant direct, indirect, or cumulative environmental impacts.

We therefore conclude that the Conditions of Certification below ensure that the transmission related aspects of the United Golden Gate Power Project, Phase 1 will be designed, constructed, and operated in conformance with the applicable laws, ordinances, regulations, and standards identified in the appropriate portions of **Appendix A** of this Decision.

We further conclude that interconnection of the Project at the UCI Switchyard is acceptable, and that it will not result in the violation of any criteria pertinent to transmission engineering.

CONDITIONS OF CERTIFICATION

TSE-1 The project owner shall ensure that the design, construction and operation of the proposed transmission facilities will conform to requirements listed below. The substitution of Compliance Project Manager (CPM) approved equivalent equipment and equivalent switchyard configurations is acceptable.

a. The power plant switchyard, outlet line and termination shall meet or exceed the electrical, mechanical, civil and structural requirements of CPUC General Order 95, Title 8, CCR, Articles 35, 36 and 37 of the, High Voltage Electric Safety Orders , National Electric Code (NEC), CPUC Rule 21, and related Industry Standards.

b. Breakers and busses in the power plant switchyard and other switchyards, where applicable, shall be sized to comply with a short-circuit analysis.

c. The UGGPP 115 kV switchyard shall include a tap of the 115 kV bus.

d. The new transmission line will be a single circuit 115 kV line terminating at the UCI switchyard.

e. Termination facilities at the interconnection shall comply with applicable Cal-ISO and PG&E interconnection standards (PG&E Interconnection Handbook and CPUC Rule 21).

f. Outlet line crossings and line parallels with transmission and distribution facilities shall be coordinated with the transmission line owner and comply with the owner s standards.

g. The outlet line shall use conductors similar to the 477-kcmil ACSR conductors.

h. The applicant shall provide a Detailed Facilities Study including a description of remedial action scheme sequencing and timing and an executed Generator Special Facilities Agreement (GSFA) for the transmission interconnection with PG&E. The Detailed Facilities Study and GSFA shall be coordinated with the Cal-ISO.

Verification: At least 30 days prior to start of construction of transmission facilities, the project owner shall submit for approval to the CPM:

a. Design drawings, specifications and calculations conforming with CPUC General Order 95 and related industry standards, where applicable, for the poles/towers, foundations, anchor bolts, conductors, grounding systems and major switchyard equipment.

b. For each element of the transmission facilities as identified above, the submittal package to the CPM shall contain the design criteria, a discussion of the calculation method(s), a sample calculation based on worst case conditions and a statement by the registered engineer in responsible charge (signed and sealed) that the transmission element(s) will conform with CPUC General Order 95, Title 8, CCR, Articles 35, 36 and 37 of the, High Voltage Electric Safety Orders , the NEC, PG&E Interconnection Handbook, CPUC Rule 21 and related industry standards.

c. Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in responsible charge, a route map, and an engineering description of equipment and the configurations covered by requirements a through h above. The Detailed Facilities Study and GSFA shall concurrently be provided. Substitution of equipment and substation configurations shall be identified and justified by the project owner for CPM approval.

TSE-2 The project owner shall inform the CPM of any impending changes, which may not conform to the requirements 1a through 1h of TSE-1, and have not received CPM approval, and request approval to implement such changes. A detailed description of the proposed

change and complete engineering, environmental, and economic rationale for the change shall accompany the request. Construction involving changed equipment, transmission facilities or switchyard configurations shall not begin without prior written approval of the changes by the CPM.

Verification: At least 15 days prior to construction of transmission facilities, the project owner shall inform the CPM of any impending changes which may not conform to requirements of TSE-1 and request approval to implement such changes.

TSE-3 The project owner shall be responsible for the inspection of the transmission facilities during and after project construction and any subsequent CPM approved changes thereto, to ensure conformance with CPUC General Order 95, Title 8, CCR, Articles 35, 36 and 37 of the, High Voltage Electric Safety Orders , the NEC, PG&E Interconnection Handbook, CPUC Rule 21 and related industry standards. In case of non-conformance, the project owner shall inform the CPM in writing within 10 days of discovering such non-conformance and describe the corrective actions to be taken

Verification: Within 60 days after first synchronization of the project, the project owner shall submit to the CPM:

a. As built engineering description(s) and one-line drawings of the electrical portion of the facilities signed and sealed by the registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC General Order 95, Title 8, CCR, Articles 35, 36 and 37 of the, High Voltage Electric Safety Orders , the NEC, PG&E Interconnection Handbook, CPUC Rule 21 and related industry standards, and these conditions shall be concurrently provided.

b. An as built engineering description of the mechanical, structural, and civil portion of the transmission facilities signed and sealed by the registered engineer in responsible charge.

c. A summary of inspections of the completed transmission facilities, and identification of any nonconforming work and corrective actions taken, signed and sealed by the registered engineer in responsible charge.

V. PUBLIC HEALTH AND SAFETY

A. AIR QUALITY

In this section we evaluate the expected air quality impacts from the emissions of criteria air pollutants due to construction and operation of the United Golden Gate Power Project Phase I. Criteria air pollutants are those for which a federal or state ambient air quality standard has been established to protect public health. They include ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), precursor organic compounds (POC), and particulate matter less than 10 microns in diameter (PM10).

SUMMARY OF THE EVIDENCE

Applicant s witness Scott Weaver sponsored his testimony and sections 5.2 and 5.16 of the AFC along with portions of Exhibit 3 and all of Exhibits 8 and 9. (Ex.12, Weaver.) The testimony demonstrated that Project impacts are expected to be well below all applicable significance thresholds. (Ex. 1, p. 1-6.) Mr. Weaver summarized his analysis and stated that he had also reviewed the Preliminary Determination of Compliance (PDOC) prepared by the Bay Area Air Quality Management District (BAAQMD) and the Staff Assessment. As a result of this review, he believes that with the conditions of certification recommended by the BAAQMD and the Staff, the project construction and operation will not result in any significant adverse air quality impacts. (Ex. 12, Weaver.)

The California Energy Commission staff also conducted an independent analysis of the Project s potential air quality impacts. Staff evaluated the following major points:

- whether the UGGPP is likely to conform with applicable Federal, State and Bay Area Air Quality Management District air quality laws, ordinances, regulations and standards, as required by Title 20, California Code of Regulations, section 1742.5 (b);

- whether the UGGPP is likely to cause significant air quality impacts, including new violations of ambient air quality standards or contributions to existing violations of those standards, as required by Title 20, California Code of Regulations, section 1742 (b); and
- whether the mitigation proposed for the UGGPP is adequate to lessen the potential impacts to a level of insignificance, as required by Title 20, California Code of Regulations, section 1744 (b).

Staff analysis included modeling for direct and indirect impacts during construction and during Project operation. Staff also modeled for fumigation impacts (the mixing of various emissions under specific adverse meteorological conditions), visibility impacts, and cumulative impacts of the Project. (Ex. 10, pp. 40-52.)

As a result of its independent analysis, Staff concluded that the UGGPP, with the implementation of the measures contained in the Conditions of Certification specified below, will not, either alone or in combination with other identified projects in the area, cause or contribute to any new or existing violations of applicable ambient air quality standards.

Staff further testified that, with the implementation of the Conditions of Certification, the UGGPP will be constructed and operated in compliance with all applicable laws, ordinances, regulations, and standards identified in Appendix A of this Decision. The Staff and Applicant testimony in support of the Project was not contested by any other party. Therefore, on the basis of the uncontested evidence, we conclude that the UGGPP will not create any significant direct or indirect adverse air quality impacts.

The District has completed a Preliminary Determination of Compliance (PDOC). The District recommended conditions are presented here as Conditions AQ-1 through AQ-17. Staff also recommended the inclusion of three Conditions of Certification AQ-C1 through AQ-C3 to address the construction-related impacts,

and Conditions of Certification AQ-C4 and AQ-C5 to address operation-related impacts.

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. The proposed United Golden Gate Power Project is located in the Peninsula sub-region of the San Francisco Bay Air Basin within the jurisdiction of the Bay Area Air Quality Management District.

2. The area is classified non-attainment for the state ozone and PM_{10} and also non-attainment for the federal ozone standard. For all other criteria pollutants, It is designated attainment , unclassified or attainment/unclassified .

3. Construction and operation of the United Golden Gate Power Project will result in emissions of criteria pollutants.

4. The Project will employ the best available control technology (BACT) to control project emissions of criteria pollutants.

5. The Air Pollution Control Officer for the Bay Area Air Quality Management District has issued a Final Determination of Compliance (FDOC) for the Project.

6. Implementation of the Conditions of Certification will ensure that the United Golden Gate Power Project will not result in any significant adverse impacts to air quality.

7. With the Conditions of Certification, the Project will be constructed and operated in Compliance with all applicable federal, state, and local laws, ordinances, regulations, and standards governing air quality and set forth in the pertinent portion of Appendix A of this Decision.

We therefore conclude that with the implementation of the Conditions of Certification below, the United Golden Gate Power will not create any significant direct, indirect, or cumulative adverse air quality impacts and will conform with all applicable laws, ordinance, regulations and standards relating to air quality as set forth in the pertinent portions of **Appendix A** of this Decision.

CONDITIONS OF CERTIFICATION

AQ-C1 Prior to the commencement of project construction, the project owner shall prepare a construction Fugitive Dust Mitigation Plan that will specifically identify fugitive dust mitigation measures that will be employed for the construction of the UGGPP and related facilities.

(a) The Construction Fugitive Dust Mitigation Plan shall specifically identify measures to limit fugitive dust emissions from construction of the project, the transmission lines and the natural gas lines. Measures that shall be addressed include the following:

- the identification of the employee parking area(s) and surface of the parking area(s);
- the frequency of watering of unpaved roads and disturbed areas;
- the application of chemical dust suppressants;
- the stabilization of storage piles and disturbed areas;
- the use of gravel in high traffic areas;
- the use of paved access aprons;
- the use of posted speed limit signs;
- the use of wheel washing areas prior to large trucks leaving the project site; and
- the methods that will be used to clean mud and dirt tracked-out from the project site onto public roads.

b) The following measures should be addressed for the transportation of the borrow fill material to the UGGPP project site and the transmission and natural gas line sites, if any, and the transportation of export soils and construction debris:

- the use of covers on the vehicles;
- the wetting of the material; and
- insuring appropriate freeboard of material in the vehicles.

Verification: At least 30 days prior to the start of construction, the project owner shall provide the CPM with a copy of the Construction Fugitive Dust Mitigation Plan for approval.

AQ-C2 The project owner shall ensure that all heavy earthmoving equipment including, but not limited to, bulldozers, backhoes,

compactors, loaders, motor graders and trenchers, and cranes, dump trucks and other heavy duty construction related trucks, have been properly maintained and the engines tuned to the engine manufacturer s specifications. The project owner shall also install oxidizing soot filters on all suitable construction equipment used either on the power plant construction site or associated linear construction sites. Suitability is to be determined by an independent California Licensed Mechanical Engineer, in consultation with the Air Resources Board (ARB), who will stamp and submit for approval an Initial Installation Report and all subsequent Suitability Reports. Where the oxidizing soot filter is determined to be unsuitable, the owner shall install and use an oxidation catalyst. The initial Suitability Report shall contain, at a minimum, the following:

Initial Suitability Report:

- A list of all fuel burning, construction related equipment used;
- A determination of the suitability of each piece of equipment to work appropriately with an oxidizing soot filter;
- A determination of the suitability of each piece of equipment to work appropriately with an oxidation catalyst;
- If a piece of equipment is determined to be unsuitable for an oxidizing soot filter, an explanation by the independent California Licensed Mechanical Engineer as to the cause of this determination; and
- If a piece of equipment is determined to be unsuitable for both an oxidizing soot filter and an oxidizing catalyst, an explanation by the independent California Licensed Mechanical Engineer as to the cause of this determination.

Installation Report:

Following the installation of either the oxidizing soot filter or oxidizing catalyst as prescribed in the Initial Suitability Report, a California Licensed Mechanical Engineer will submit an Installation Report to the CPM for approval that either confirms that the installed device is functioning properly or that installation was not possible and the reason.

Subsequent Suitability Reports:

If a piece of construction equipment is subsequently determined to be unsuitable for an oxidizing soot filter or oxidizing catalyst after such installation has occurred, the filter or catalyst may be removed immediately. However, notification must be sent to the CPM for approval containing an explanation for the change in suitability within

10 days of the determination of unsuitability. Changes in suitability are restricted to one of three explanations that must be identified in any subsequent suitability report. Changes in suitability may not be based on the use of high-pressure fuel injectors, timing retardation and/or reduced idle time.

a. The filter or catalyst is excessively reducing normal availability of the construction equipment due to increased downtime, and/or power output due to increased back pressure.
b. The filter or catalyst is causing or is reasonably expected to cause significant damage to the construction equipment engine.
c. The filter or catalyst is causing or is reasonably expected to cause a significant risk to nearby workers or the public.

Verification: The project owner shall submit to the CPM for approval, the initial suitability report stamped by an independent California Licensed Mechanical Engineer, 15 days prior to ground disturbance on the project site. The project owner will submit to the CPM for approval, the installation report, stamped by an independent California Licensed Mechanical Engineer, no later than 10 days following the use of the equipment on the project site. The project owner will submit to the CPM for approval, subsequent suitability reports as required, stamped by an independent California Licensed Mechanical Engineer no later than 10 working day following a change in the suitability status of any construction equipment. The CPM will monitor the approval of all reports submitted to the project owner in consultation with ARB, limiting the review time for any one report to no more than seven working days.

AQ-C3 The project owner shall make a good faith effort to use available certified low-NOx emission heavy-duty construction equipment.

Verification: At least 15 days prior to beginning the construction bid solicitation process, the project owner shall submit to the CPM a bid evaluation plan for approval. This bid evaluation plan shall include a requirement that all bidders include information regarding the availability of low-NOx emission equipment and shall include a methodology for including this information in the overall bid evaluation process. The project owner shall maintain all construction bid records on the site for six months following the start of commercial operation.

AQ-C4 The project owner shall provide to the CPM and the District, vendor and design data for the SCR and Oxidation catalyst systems, which will include performance guarantees that demonstrate that the systems have been designed to meet the NOx, CO and POC emission

concentration limits specified in Certification Condition AQ-4. Additionally, the vendor data shall include ammonia slip performance data to be used to determine the final ammonia slip emission limit in Certification Condition AQ-4 (c).

Verification: At least 30 days prior to the installation of the catalyst systems, the project owner shall provide the CPM and the District with a copy of the SCR and Oxidation catalyst systems vendor and design data for approval.

AQ-C5 The project owner shall operate the water injection and post-combustion emission control devices (SCR and Oxidation catalyst systems) at all times, as practical per manufacturer recommendations, during turbine operation; including but not limited to normal operation, startup/shutdown, and during initial commissioning. The project owner shall provide operating interlocks, or other control systems, that force the emission control equipment to be in operation during turbine operation.

Verification: At least 30 days prior to the installation of the catalyst systems, the project owner shall provide the CPM documentation on the control systems, procedures, etc. that will be used to ensure proper control of equipment operation.

DISTRICT PRELIMINARY DETERMINATION OF COMPLIANCE CONDITIONS

Definitions:

Clock Hour:	Any continuous 60-minute period beginning on the hour.
Calendar Day:	Any continuous 24-hour period beginning at 12:00 AM or 0000 hours.
Year:	Any consecutive twelve-month period of time.
Heat Input:	All heat inputs refer to the heat input at the higher heating value (HHV) of the fuel, in BTU/scf.
Rolling three-hour period:	Any three-hour period that begins on the hour and does not include start-up or shutdown periods.

Firing Hours:	Period of time during which fuel is flowing to a unit, measured in fifteen minute increments.
Gas Turbine Start-up Mode:	The first 10 minutes of continuous fuel flow to the Gas Turbine after fuel flow is initiated; or the amount of time from Gas Turbine fuel flow initiation until the requirements listed in Condition 4 are met, whichever is less.
Gas Turbine Shutdown Mode:	The last 10 minutes before fuel flow to the Gas Turbine is terminated; or the amount of time from non-compliance with any requirement listed in Condition 4 until termination of fuel flow to the Gas Turbine, whichever is less.

AQ-1 Source 1 (S-1 Gas Turbine) shall be fired on natural gas exclusively. (Basis: BACT for SO2 and PM10)

Verification: Upon request, the owner/operator shall make all records and reports available at the project site to representatives of the District, ARB, EPA and the Energy Commission for inspection.

AQ-2 The heat input rate of S-1 shall not exceed 1,950,000 MMBtu per consecutive 12 month period, higher heating value, and the cumulative turbine start-up and shutdown sequences for these periods shall not exceed 125 hours total. (Basis: cumulative increase)

Verification: See Verification in Condition AQ-1.

AQ-3 S-1 shall be abated by the properly operated and properly maintained A-1 Selective Catalytic Reduction (SCR) unit and the oxidation catalyst, A-2. (BACT for NOx POC and CO)

Verification: The project owner/operator shall make the site available to representatives of the District, ARB, EPA and CEC for inspection.

AQ-4 The Gas Turbine (S-1) shall comply with requirements (a) through (f) below, except during gas turbine start-up or shutdown.

a. The nitrogen oxide emission concentration at emission point P-1 shall not exceed 3.0 ppmv, on a dry basis, corrected to 15% O2,

averaged over any 3-hour period, nor 6.5 pounds during any hour. (BACT for NOx)

b. The carbon monoxide emission concentration at P-1 shall not exceed 6.0 ppmv, on a dry basis, corrected to 15% O2, averaged over any rolling 3-hour period, nor 7.9 pounds during any hour. (BACT for CO)

c. Ammonia (NH3) emission concentrations at P-1 shall not exceed 10 ppmv, on a dry basis, corrected to 15% O2, averaged over any rolling 3-hour period. This ammonia emission concentration shall be verified by the continuous recording of the ammonia injection rate to A-1 SCR System. The correlation between the gas turbine heat input rates, A-1 SCR System ammonia injection rates, and corresponding ammonia emission concentration at emission point P-1 shall be determined in accordance with Condition AQ-16. Prior to issuance of the Permit to Operate for this project, if substantial data is provided to the District that demonstrates that a lower ammonia slip limit is achieved in practice for a similar-sized natural-gas fired, simple-cycle gas turbine abated by an SCR system, then the District shall reduce the ammonia slip limit below 10.0 ppmv as appropriate. (Toxic Risk Management Policy for NH3, CEQA)

d. The precursor organic compound emission concentration at P-1 shall not exceed 2.0 ppmv, on a dry basis, corrected to 15% O2, averaged over any rolling 3-hour period, nor 1.0 pounds per hour. (BACT for POC)

e. Sulfur dioxide (SO2) mass emissions at P-1 shall not exceed 1.34 pounds per hour. (BACT for SO2)

f. Particulate matter (PM10) mass emissions at P-1 shall not exceed 3.14 pounds per hour, including condensable particulate matter. (BACT for PM10)

Verification: The project owner/operator shall submit to the CEC CPM for the preceding calendar quarter by January 30, April 30, July 30 and October 30 of each year the permit is in effect, the air pollutant concentrations and mass emissions data verifying compliance with this condition.

AQ-5 Emissions from S-1, Gas Turbine, including emissions generated during gas turbine start-ups and gas turbine shutdowns, shall not exceed the following limits during any consecutive twelve-month period:

a. 12.7 tons of NOx (as NO2) per year (Basis: Cumulative Increase)

b. 15.4 tons of CO per year (Basis: Cumulative Increase)

c. 1.4 tons of POC (as CH4) per year (Basis: Cumulative Increase)

d. 6.1 tons of PM10 per year (Basis: Cumulative Increase)

e. 2.6 tons of SO2 per year (Basis: Cumulative Increase)

Verification: As part of the information submittals of Condition AQ-4, the project owner/operator shall submit data verifying the annual emission limits of this condition.

AQ-6 The owner/operator of the United Golden Gate Power Plant (UGGPP) shall demonstrate compliance with Conditions AQ-4(a), 4(b), 5(a) and 5(b) through the use of properly operated and maintained continuous emission monitors and data recorders.

The monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for the Gas Turbine. The owner/operator shall use District-approved methods to calculate heat input rates, mass emission rates, and emission concentrations, summarized for each clock hour and each calendar day.

(Basis: 1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)

Verification: See Verification in Condition AQ-1.

AQ-7 The owner/operator shall demonstrate compliance with Conditions AQ-1 and 2, and 4(a) and 4(b), 5(a) and 5(b), by using properly operated and maintained continuous monitors (during all hours of operation including equipment start-up and shutdown periods) for all of the following parameters:

a. Fuel flow rates for S-1.

b. Oxygen concentrations, NOx concentrations, and CO concentrations at exhaust point P-1.

c. Ammonia injection rate at A-1 SCR System.

d. Water injection rate at S-1 Gas Turbine.

The owner/operator shall record all of the above parameters every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each clock hour. For each calendar day, the owner/operator shall calculate and record the total firing hours, the average hourly fuel flow rates, and pollutant emission concentrations. The owner/operator will also record the total number of hours of startup and shutdown each day.

The owner/operator shall use the parameters measured above and District-approved calculation methods to calculate the following parameters:

e. Heat input rate for S-1.

f. Corrected NOx concentrations, NOx mass emissions (as NO2), corrected CO concentrations, and CO mass emissions at exhaust point P-1.

Verification: See Verification in Condition AQ-1.

AQ-8 The District-approved continuous monitors specified in Condition AQ-6 and AQ-7 shall be installed, calibrated, and operational prior to first firing of the Gas Turbine. After first firing of the turbine, the detection range of these continuous emission monitors shall be adjusted as necessary to accurately measure the resulting range of CO and NOx emission concentrations. The type, specifications, and location of these monitors shall be subject to District review and approval.

For the gas turbine, the owner/operator shall record the parameters specified in Condition AQ-7(a) through 7(f) at least once every 15 minutes (excluding normal calibration periods). As specified below, the owner/operator shall calculate and record the following data:

a. Total Heat Input Rate for every clock hour and the average hourly Heat Input Rate for every rolling 3-hour period.

b. On an hourly basis, the cumulative total Heat Input Rate for each calendar day for the Gas Turbine (S-1).

c. The average NOx mass emissions (as NO2), CO mass emissions, and corrected NOx and CO emission concentrations for every clock hour and for every rolling 3-hour period.

d. On an hourly basis, the cumulative total NOx mass emissions (as NO2) and the cumulative total CO mass emissions, for each calendar day for the Gas Turbine (S-1).

e. For each calendar day, the average hourly Heat Input Rates, corrected NOx emission concentrations, NOx mass emissions (as NO2), corrected CO emission concentrations, and CO mass emissions for the Gas Turbine.

f. On a daily basis, the cumulative total NOx mass emissions (as NO2) and cumulative total CO mass emissions, for the previous consecutive twelve month period for the Gas Turbine.

(Basis: 1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)

Verification: See Verification in Condition AQ-1.

AQ-9 To demonstrate compliance with Conditions AQ-4(d) through 4(f), and 5(c) through 5(e), the owner/operator shall calculate and record on a daily basis, the Precursor Organic Compound (POC) mass emissions, Fine Particulate Matter (PM10) mass emissions (including condensable particulate matter), and Sulfur Dioxide (SO2) mass emissions from P-1. The owner/operator shall use the actual Heat Input Rates calculated pursuant to Conditions AQ-6 and 7, actual Gas Turbine Start-up Times, actual Gas Turbine Shutdown Times, and District-approved emission factors to calculate these emissions. The calculated emissions shall be presented for each calendar day, POC, PM10, and SO2 emissions shall be summarized for S-1 Gas Turbine.

(Basis: Offsets, Cumulative Increase)

Verification: See Verification in Condition AQ-1.

AQ-10 The owner/operator of the UGGPP shall obtain approval for all source test procedures from the District s Source Test Section prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements for continuous emission monitors as specified in Volume V of the District s Manual of Procedures. The owner/operator shall notify the District s Source Test Section in writing of the source test protocols and projected test dates at least 7 days prior to the testing date(s). As indicated above, the owner/operator shall measure the contribution of condensable PM (back half) to the total PM10 emissions. However, the owner/operator may propose alternative measuring techniques to measure condensable PM such as the use of a dilution tunnel or other appropriate method used to capture semi-volatile organic compounds. Source test results shall be submitted to the District within 60 days of conducting the tests. (BACT)

Verification: The project owner/operator shall provide the District and CEC CPM source test protocols and projected test dates for approval at least seven days prior to the testing date(s). Additionally, the project owner/operator shall provide the District and CEC CPM the source test results within 60 days of conducting the tests.

AQ-11 The owner/operator of the UGGPP shall submit all reports (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment breakdown reports, etc.) as required by District Rules or Regulations and in accordance with all procedures and time limits specified in the Rule, Regulation, Manual of Procedures, or Enforcement Division Policies & Procedures Manual. (Regulation 2-6-502)

Verification: The project owner/operator shall include all reports required in this condition in the quarterly reports submitted under Condition AQ-4.

AQ-12 The owner/operator of the UGGPP shall maintain all records and reports on site for a minimum of 5 years. These records shall include but are not limited to: continuous monitoring records (firing hours, fuel flows, emission rates, monitor excesses, breakdowns, etc.), source test and analytical records, emission calculation records, records of plant upsets and related incidents. The owner/operator shall make all records and reports available to District staff upon request. (Regulation 2-6-501)

Verification: See Verification in Condition AQ-1.

AQ-13 The owner/operator of UGGPP shall provide adequate stack sampling ports and platforms to enable the performance of source testing. The location and configuration of the stack sampling ports shall be subject to District review and approval. (Regulation 1-501)

Verification: Thirty days prior to the start of construction of the emission stack, the project owner/operator shall provide the District and CPM an approved for construction drawing showing the appropriate stack height and location of sampling ports and platforms. The project owner/operator shall make the site available to representatives of the District, ARB, EPA and the Energy Commission for inspection.

AQ-14 Within 30 days of the issuance of the Authority to Construct for the UGGPP, the owner/operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous monitors, sampling ports, platforms, and source tests required by Conditions AQ-6 through 9, and 17. All source testing and monitoring shall be conducted in accordance with the BAAQMD Manual of Procedures. (Regulation 1-501)

Verification: Within 30 days of the issuance of the Authority to Construct, the project owner/operator shall provide to the District, with a copy to the CPM, the technical information needed to demonstrate compliance with the BAAQMD Manual of Procedures.

AQ-15 The owner/operator of UGGPP shall submit an application for a major facility permit and a Phase II Acid Rain Permit (Title IV) to the APCO and to EPA within 12 months after the facility becomes subject

to Regulation 2, Rule 6. Operation of the Gas Turbine S-1 without a Title IV operating permit may not occur sooner than 24 months after the application is received by the District. (Basis: Regulation 2-6-404.1 and Regulation 2-7).

Verification: The project owner shall submit to the District and CEC CPM the applications for a major facility permit and Phase II Acid Rain permit, and obtain such permits prior to the start of operation.

AQ-16 Within 60 days of start-up of the UGGPP, the owner/operator shall conduct a District-approved source test on exhaust point P-1 to determine the corrected ammonia (NH3) emission concentration to determine compliance with Condition AQ-4(c). The source test shall determine the correlation between the heat input rates of the gas turbine, A-1 SCR System ammonia injection rate, and the corresponding NH3 emission concentration at emission point P-1. The source test shall be conducted over the expected operating range of the turbine (including, but not limited to, minimum and 100 % load) to establish the range of ammonia injection rates necessary to achieve NOx emission reductions while maintaining ammonia slip levels. Continuing compliance with Condition AQ-4(c) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rates. (Basis: TRMP)

Verification: The project owner/operator shall provide the results of the source test per the requirements of Condition AQ-10.

AQ-17 Within 60 days of start-up of the UGGPP the owner/operator shall conduct a District-approved source test on exhaust point P-1 while S-1 Gas Turbine is operating at start up mode conditions to determine the emission factors, mentioned in Condition AQ-9 above, that upon District approval, will be used to determine compliance with Conditions AQ-5(a), 5(b), 5(c), 5(d), and 5(e).These source test results will also be used to verify the accuracy and calibration of the continuous emission monitors required in Condition AQ-6. (BACT, Offsets.)

Verification: The project owner/operator shall provide the results of the source tests per the requirements of Condition AQ-10.

AQ-18 Within 60 days of start-up of the UGGPP, and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on exhaust point P-1, while S-1 Gas Turbine is

operating at baseload (not during startup or shutdown) conditions to determine compliance with Conditions AQ-4(a), 4(b), 4(d), 4(e), 4(f) and 5(a) through 5(e). These source test results will also be used to verify the accuracy and calibration of the continuous emission monitors required in Condition AQ-6. (BACT, Offsets)

Verification: **Verification**: The project owner/operator shall provide the results of the source tests per the requirements of Condition AQ-10.

AQ-19 Within 60 days of start-up of the UGGPP, and on an annual basis thereafter, the owner/operator shall take samples of the natural gas combusted in S-1 Gas Turbine. The samples shall be analyzed for sulfur content using District-approved laboratory methods or the owner/operator shall obtain certified analytical results from the gas supplier. The sulfur content test results shall be retained on-site for a minimum of five years from the test date. Sulfur content shall be no more than 0.75 grains/100 scf. (Basis: cumulative increase)

Verification: The project owner/operator shall include the results of sample analysis in the quarterly reports required in Condition AQ-4 when the results are available.

B. PUBLIC HEALTH

The purpose of the Commission s public health analysis is to determine whether a significant health risk would result from public exposure to the chemicals and combustion by-products which are routinely emitted from the Project during operations. The issue of possible worker exposure is addressed in the **Worker Safety and Fire Protection** section of the Decision. The health significance of exposure to electric and magnetic fields (EMF), which is usually addressed separately in a **Transmission Line Safety and Nuisance** (TLSN) section, is addressed below in this **Public Health** section. Because no new transmission line is proposed for the Project, a separate TLSN section was not prepared.

The pollutants considered in this section are those for which no air quality standards have been established, known as *noncriteria pollutants*, toxic air pollutants, or air toxics. Those pollutants for which ambient air quality standards have been established are known as *criteria* pollutants. Since, as noted in the **Air Quality** section, this project is proposed for an area with existing violations of specific air quality standards, the potential for impact exacerbation is addressed in this **Public Health** section as well as the need for specific mitigation.

The criteria pollutants are also identified in this section (along with regulations for their control) because of their usually significant contribution to the total pollutant exposure in any given area. Furthermore, the same control technologies may be effective for controlling both types of pollutants when emitted from the same source. Compliance with the required control technologies is discussed in the **Air Quality** section.

SUMMARY OF THE EVIDENCE

Applicant s witness Scott Weaver offered testimony stating that the Project will comply with all applicable laws, ordinances, regulations and standards.

Furthermore, he noted that the Project will have no significant adverse impacts upon public health in the area. He supported these conclusions with the analyses contained in sections 5.2 and 5.16 of the AFC (Ex. 1) and by portions of Exhibits 3, 8, and 9. (Ex. 12, Weaver.)

Criteria Pollutants

Staff testimony sponsored by Obed Odoemelam, Ph.D., agreed with Applicant s conclusion as a result of the separate Staff analysis of the Project. He noted the project area is located in the San Francisco Bay Air Basin, which is non-attainment (meaning that its ambient levels are currently higher than applicable air quality standards) for ozone at the federal and state levels. For PM10, the area is non-attainment only with respect to the state s standard. Such non-attainment status requires the offsetting of these two pollutants when contributed by UGGPP and any other new sources in the air basin. However, the Air District s requirement for such offsets is triggered only when such contributions are above specific thresholds. (Ex. 10, pp. 65-75.)

The Staff analysis revealed that the project s contribution to the area s PM10 and ozone precursors would be at levels Staff considers insignificant with respect to the applicable standards. The emissions from the project are also below the levels requiring offsets under BAAQMD s regulations. Therefore, the Commission is not requiring offsets in the **Air Quality** section for any criteria pollutants. Staff considers the emission controls built into the Project to be appropriate to adequately reduce any potential impacts from criteria and noncriteria pollutants emitting from the Project.

Noncriteria Pollutants

The Staff witness testified that he also evaluated the following noncriteria pollutants with respect to noncancer effects: ammonia, in case of use of the

selective catalytic reduction (SCR) system alternative for NOx control, acetaldehyde, acrolein, benzene, 1,3 butadiene; ethylbenzene, formaldehyde, hexane, naphthalene, polycyclic aromatic hydrocarbons (PAHs), propylene oxide, toluene, and xylenes. The following were considered with regard to a possible cancer risk: acetaldehyde, benzene, 1,3 butadiene, formaldehyde, PAHs and propylene oxide. (Ex. 10 p. 71.)

The accepted method used by state regulatory agencies in accessing the significance for both acute and chronic noncarcinogenic public health effects is known as the hayard index method. A maximum chronic hazard index of 0.0032 was calculated for the maximally exposed individual while an acute hazard index of 0.016 was calculated for the same individual (Ex. 1,p. 5.16-5). These indices are significantly below the levels of potential health significance, indicating that no significant health impacts would be associated with the project s noncriteria pollutants. (Id.)

The highest combined cancer risk was estimated to be 0.094 in a million for an individual at the point of maximum impact. This risk was calculated using existing procedures, in which it is assumed that the individual would be exposed at the highest possible levels to all the carcinogenic pollutants from the project for 70 years. This risk value is significantly below Staff s de minimis level, meaning that the project s carcinogenic emissions would not pose a significant cancer risk anywhere in the project area. In other words, the maximum cancer risk associated with the Project is less than one-tenth of the one-in-one million significance threshold commonly accepted for risk analysis purposes. (Id.)

The Staff witness concluded that the construction and operation of the proposed natural gas-burning project will not pose a significant public health risk to the surrounding population with respect to the toxic pollutants considered. The levels of the project s criteria pollutants indicate that its operation will not contribute significantly to the area s existing ozone and PM10 problem. Since no

additional transmission facilities will be built near residences, there will be no residential EMF exposure during operations. (Ex. 10, p. 73.)

FINDINGS AND CONCLUSIONS

Based on the evidence of record and assuming the implementation of the Conditions of Certification contained in this Decision, we find as follows:

1. The primary potential adverse public health impact associated with the United Golden Gate Power Project is due to combustion products from burning natural gas.

2. Combustion of natural gas results in the emission of criteria and noncriteria pollutants.

3. As discussed in the Air Quality portion of this Decision, emissions of criteria pollutants will be at levels consistent with those established to protect public health.

4. The accepted method used by state regulatory agencies in assessing the significance for both acute and chronic noncarcinogenic public health effects is known as the hazard index method. A similar method is used for assessing the significance of potential carcinogenic public health effects.

5. Application of the hazard index method reveals that emission of non-criteria pollutants from the United Golden Gate Power Project will not cause acute or chronic adverse public effects.

6. Cumulative impacts from noncriteria pollutants are not expected to be significant.

7. The maximum cancer risk associated with the Project is less than one-tenth of the one-in-one million significance threshold commonly accepted for risk analysis purposes.

8. Emissions from the construction, operation and closure of the proposed natural gas-burning United Golden Gate Power Project will not have a significant negative impact on the public health of the surrounding population or make any significant contribution to any local exposure of a cumulative nature.

We therefore conclude that emissions of noncriteria pollutants from the project will not pose a significant direct, indirect, or cumulative adverse public health risk.

CONDITIONS OF CERTIFICATION

All Conditions of Certification that control project emissions are specified in the **Air Quality** section of this Decision.

C. WORKER SAFETY AND FIRE PROTECTION

The purpose of this analysis is to assess the adequacy of worker safety and fire protection measures proposed by El Paso for the United Golden Gate Power Project (UGGPP). Staff has reviewed the Application for Certification (AFC) submitted in September, 2000, to determine whether El Paso has proposed adequate measures to:

- comply with applicable safety laws, ordinances, regulations and standards;
- protect the workers during construction and operation of the facility;
- protect against fire; and
- provide adequate emergency response procedures.

SUMMARY OF THE EVIDENCE

Applicant s testimony on worker safety and fire protection was prepared by Jim Brady of WZI, Inc. Mr. Brady s testimony incorporated section 5.17 of the AFC which contains a detailed analysis of worker safety and fire protection aspects of the proposed Project. (Ex. 1, section 5.17; Ex.12, Brady.) He concluded that the Project will comply with all LORS applicable in this area and that with the Conditions of Certification proposed by Staff, the Project will not have any significant adverse impacts upon the environment, on project workers, or on local fire protection services. (Ex. 12, Brady.)

The analysis of the Commission staff was conducted by Staff witness Rick Tyler who presented the analysis in his testimony. (Ex. 10, pp. 75-92.) Staff has determined that the features of the proposed project, in association with the proposed worker safety plans and procedures, will comply with applicable LORS and minimize the exposure of workers to industrial accidents or hazards. However, the witness noted that issues relating to the Project s impacts to local fire protection service capabilities and appropriate mitigation have not yet been

completely resolved but are addressed through the proposed Condition of Certification Worker Safety-3. The Project will rely on both on-site fire protection systems and the SFFD for fire protection and emergency response services.

The information provided in the AFC indicates that the proposed fire protection system at the site will be adequate for fighting fires.

Staff testified that a major fire, hazardous material release, or emergency rescue would require the services of the local Fire department. The SFFD has expressed concern that they will need additional equipment and personnel in order to provide effective services to the proposed UGGPP facility. The SFFD is currently evaluating the specific needs and will provide a more detailed specification of needs in the near future. (Ex. 10, p. 79.)

Staff recommends that the costs for such equipment and personnel be provided in advance by El Paso. Staff proposes a condition of certification **WORKER SAFETY—3** to assure that the UGPP impacts to the Fire Department s fire and emergency service capabilities will be mitigated in this manner. Applicant did not oppose Staff s recommendation and the Commission has included it below.

To ensure the safety and health of plant construction and operation workers at the Project, Applicant will prepare a Safety and Health Program to minimize worker hazards during construction and operation. The phrase Safety and Health Program to refer to the measures that will be taken to ensure compliance with the applicable LORS during the construction and operational phases of the Project.

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record and with implementation of the Conditions of Certification which follow, we find as follows:

1. The United Golden Gate Power Project will be designed, constructed, and operated in a manner sufficient to reasonably protect workers and the public from fire dangers.

2. The existing health and safety policies in effect at the Project include provisions for ongoing operation, including incidental construction.

3. Condition of Certification **Worker Safety-3** will ensure that local fire and emergency service resources will be adequate to meet the needs of the Project.

4. The Project will not cause adverse impacts to existing fire and emergency service resources.

5. Assuming compliance with the Conditions of Certification contained in this Decision, the Project will comply with the laws, ordinances, regulation and standards intended to protect worker health and safety and identified in **Appendix A** of this Decision.

CONDITIONS OF CERTIFICATION

WORKER SAFETY-1 The project owner shall submit to the CPM a copy of the Project Construction Safety and Health Program, containing the following:

- a construction Injury and Illness Prevention Program
- a construction Fire Protection and Prevention Plan
- a personal Protective Equipment Program

Protocol: The Construction Injury and Illness Prevention Program and the Personal Protective Equipment Program shall be submitted to the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) Consultation Service, for review and comment concerning compliance of the program with all applicable Safety Orders.

The Construction Fire Protection and Prevention Plan shall be submitted to the SFFD for review and acceptance.

Verification: At least 30 days prior to the start of construction, or a date agreed to by the CPM, the project owner shall submit to the CPM a copy of the Project Construction Safety and Health Program and the Personal Protective Equipment Program, with a copy of the cover letter transmittal of

the programs to Cal/OSHA Consultation Service. Prior to the start of construction, the project owner shall provide a letter from the SFFD stating that they have reviewed and accepted the Construction Fire Protection and Prevention Plan.

WORKER SAFETY-2 The project owner shall submit to the CPM a copy of the Project Operation Safety and Health Program containing the following:

- an Operation Injury and Illness Prevention Plan
- an Emergency Action Plan
- on Operation Fire Protection Plan
- a Personal Protective Equipment Program

Protocol: The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) Consultation Service for review and comment concerning compliance of the program with all applicable Safety Orders. The operation s Emergency Action Plan and Fire Protection Plan shall be submitted to the SFFD for review and acceptance. The final versions of the operation Injury and Illness Prevention Plan, Emergency Action Plan, Fire Protection Plan and Personal Protective Equipment Program shall incorporate Cal/OSHA and SFFD comments that were received and accepted.

Verification: At least 30 days prior to the start of operation, the project owner shall submit to the CPM a copy of the final version of the Project Operation Safety & Health Program with a copy of the cover letter to Cal/OSHA s Consultation Service, and SFFD comments stating that they have reviewed and accepted the specified elements of the proposed Operation Safety and Health Plan.

The project owner shall notify the CPM that the Project Operation Safety and Health Program (Injury and Illness Prevention Plan, Fire Protection Plan, the Emergency Action Plan, and Personal Protective Equipment requirements), including all records and files on accidents and incidents, is present on-site and available for inspection.

WORKER SAFETY-3 Prior to the start of operation, the project owner shall reach an agreement with the SFFD regarding the amount and payment of fees for project-specific impacts associated with worker safety and fire protection.

If an agreement cannot be reached prior to construction, the project owner shall inform the CPM and propose a plan to mitigate impacts on fire services. The plan shall include:

a. a funding proposal for equipment and staffing necessary to provide effective fire protection and hazardous materials incident response.

Verification: Not later than 30 days prior to operation, the project owner shall provide the CPM with a copy of the agreement between SFFD and the project owner relative to the agreed-upon fees and payment for equipment and/or staffing.

If an agreement cannot be reached at least 30 days prior to operation, the project owner, in consultation with the CPM, shall draft an interim agreement (between SFFD and the project owner) which will remain in effect until a permanent agreement can be reached.

D. HAZARDOUS MATERIALS MANAGEMENT

The purpose of the Commission s analysis in this area is to determine if the proposed Phase I of the UGGPP will result in the potential for a significant impact on the public resulting from the use, handling or storage of hazardous materials at the proposed facility. If significant adverse impacts on the public are identified, the Commission must also evaluate design alternatives and additional mitigation measures to reduce any impacts to the extent feasible.

SUMMARY OF THE EVIDENCE

Jim Brady of WZI, Inc. served as Applicant s witness in this area. His testimony established that Project construction and operation waste streams were evaluated as well as plans for the collection, disposal, and recycling of these wastes. Details of the analysis are found in section 5.15 of the AFC (Ex. 1, p. 5.15-1 through 5.15-19.) He concluded that, based on this evaluation, the Project will comply with all applicable laws, ordinances, regulations and standards concerning the handling of hazardous materials. Furthermore, he stated that, with the Conditions of Certification proposed by Staff, the Project will not have any significant adverse impacts on the environment due to the use and handling of hazardous materials. (Ex. 12, Brady.)

Staff s evaluation of the proposed Project (with staff s proposed mitigation measures) indicates that with the proposed Conditions of Certification, hazardous materials use at the Project will pose no potential for significant impacts on the public. The full evaluation is contained in Exhibit 10, pages 93-102. With adoption of the proposed Conditions of Certification, the proposed Project will comply with all applicable laws, ordinances, regulations and standards (LORS). In response to Health and Safety Code, section 25531 et seq., the applicant may

be required to develop Risk Management Plan (RMP).[9] If an RMP is required it will be submitted to the Environmental Protection Agency (EPA), the San Francisco City and County Public Health Department, and Energy Commission staff for evaluation prior to ammonia delivery to the UGGPP. There is also a Condition of Certification that requires San Francisco City and County Health Department s acceptance of the RMP and Commission staff s approval of the RMP prior to delivery of aqueous ammonia to the facility. With adoption of the Conditions of Certification, the project will also comply with Health and Safety Code, section 41700, and it will not pose any potential for significant impacts to the public from hazardous materials releases. (Ex. 10, p.98.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. The United Golden Gate Power Project will use hazardous materials at the facility.

2. Aqueous ammonia, natural gas, and small amounts of solvents and paint are hazardous materials which will be used by the Project and have the potential to create public health and safety hazards.

3. The principal types of potential public health and safety hazards associated with the hazardous materials noted in Finding 2 above are the accidental release of ammonia gas and fire and explosion from natural gas.

4. The Conditions of Certification set forth below require safety and mitigation measures, which will reduce Project-related risks to acceptable levels both on and off the Project site.

5. The Project owner s design and mitigation measures will reduce to acceptable levels the possibility of dangerous events associated with the hazardous materials proposed for use at the Project.

[9] At present, it appears unlikely that an RMP will be required.

6. The United Golden Gate Power Project will not create a risk, nor contribute to a cumulative risk, to public health and safety.

7. With the implementation of the Conditions of Certification, the Project will conform with applicable laws, ordinances, regulations, and standards relating to hazardous materials management which are specified in Appendix A of this Decision.

We therefore conclude that the hazardous materials used at the United Golden Gate Power Project will not create or contribute to any significant adverse public health and safety impacts.

CONDITIONS OF CERTIFICATION

HAZ-1 The project owner shall not use any hazardous material in reportable quantities, as specified in Title 40, C. F.R. Part 355, Subpart J, section 355.50, not listed in Appendix B, on page 107 of Exhibit 10 (Ex. 1, Table 5.15-2), or in greater quantities than those identified by chemical name in Appendix B, below, unless approved in advance by the CPM.

Verification: The project owner shall provide to the CPM, in the Annual Compliance Report, a list of hazardous materials contained at the facility in reportable quantities.

HAZ-2 If required by the San Francisco City and County Department of Public Health (SF DPH), the project owner shall provide a Business Plan and Risk Management Plan (RMP) to the SF DPH and the CPM for review an approval. If required the RMP shall be submitted the CPM at the time the RMP is first submitted to either the San Francisco City and County Public Health Department or the U.S. Environmental Protection Agency (EPA). The project owner shall reflect all recommendations of the SF DPH and the CPM in the final document. A copy of the final RMP, reflecting all comments, shall be provided to both the SF DPH and the CPM once it is deemed complete.

Verification: At least 60 days prior to handling reportable quantities of any hazardous material the owner shall provide a copy of a final Business Plan approved by the San Francisco City and County Public Health Department to the CPM. At least 60 days prior to delivery of aqueous ammonia to the UGGPP the owner shall provide the final RMP accepted by the San

Francisco City and County Public Health Department, to the CPM for approval.

HAZ-3 The project owner shall develop and implement a safety management plan for delivery of ammonia. The plan shall include procedures, protective equipment requirements, training and a checklist.

Verification: At least 60 days prior to the delivery of aqueous ammonia to the facility, the project owner shall provide a safety management plan as described above to SFIA for review and to the CPM for review and approval.

HAZ-4 The aqueous ammonia storage tanks shall be constructed to specifications at least as protective as those in American Petroleum Institute (API) 620. The storage tank shall be double walled design or be within a secondary containment designed and operated to hold the volume of precipitation from a 24-hour, 25-year storm event plus 100 percent of the capacity of the largest tank within its boundary. It shall also have a surface cover providing at least 90% reduction of the surface area exposed to the atmosphere over any potentially spilled ammonia.

Verification: At least 60 days prior to delivery of aqueous ammonia to the site, the project owner shall submit final design drawings and specifications for the ammonia storage facility to SFIA for review and to the CPM for review and approval.

HAZ-5 The aqueous ammonia delivery facilities shall be protected by catchment basins designed to hold 100 percent of the largest delivery vehicle used to deliver aqueous ammonia. This basin shall also have a surface cover reducing atmospheric exposure to any spilled ammonia by at least 90 percent.

Verification: At least 60 days prior to delivery of aqueous ammonia to the site the project owner shall submit final design drawings and specifications for the ammonia delivery facility to SFIA for review and to the CPM for review and approval.

E. WASTE MANAGEMENT

In this subject area the Applicant and Staff witnesses presented assessments of issues associated with managing wastes generated from constructing and operating the proposed United Golden Gate Power Project. These assessments evaluated the proposed waste management plans and mitigation measures designed to reduce the risks and environmental impacts associated with handling, storing, and disposing of project-related hazardous and nonhazardous wastes generated during facility construction and operation.

SUMMARY OF THE EVIDENCE

Applicant s consultant, James Brady, offered testimony in support of the Project. In order to assess the potential for contamination at the proposed site, the Project owner commissioned a Phase I Environmental Site Assessment (ESA) by WZI, Inc., which was conducted in October 2000. The Phase I ESA was performed in accordance with American Society for Testing and Materials practice E 1527-97. The purpose of an ESA was to determine the potential for the presence or likely presence of any hazardous substances or petroleum products under conditions that may indicate a release or threat of a release from present or past activities. WZI concluded that there are no conditions of concern and no environmental liabilities observed on the site or properties immediately surrounding the site. (Ex. 1, section 5.14; Ex. 12, Brady.)

The witness noted that hazardous wastes generated during project construction will include small quantities of waste oil, spent solvents and welding materials, waste paint, adhesives, and materials from the cleanup of spills. UGGPP estimates the quantities to be less than 200 gallons monthly during the construction period. AFC Table 5.14-2 presents a summary of hazardous construction waste streams and management methods. (Id.)

Mr. Brady summarized the types of hazardous wastes generated during routine project operation including batteries, used lubricants, cleaning solutions, waste paint, contaminated cleanup materials, and compressor wash water. About one-half ton of hazardous wastes would be generated annually. (Id.)

Staff witness Michael Ringer also analyzed Project impacts regarding waste management and found that management of the wastes generated during construction and operation of the UGGPP project will not result in any significant adverse impacts if El Paso Merchant Energy implements the mitigation measures proposed in the Application for Certification and the additional measure proposed by Staff. (Ex. 10, p 114.)

The additional Condition of Certification proposed by Staff requires that if potentially contaminated soil is unearthed during excavation at the proposed site as evidenced by discoloration, odor, or other signs, UGGPP have an environmental professional (as defined by American Society for Testing and Materials practice E 1527-97 Standard Practice for Phase I Environmental Site Assessments) determine the need for sampling to confirm the nature and extent of contamination. If significant remediation may be required, UGGPP should also contact representatives of the San Francisco Department of Public Health and the Berkeley Regional Office of the California Department of Toxic Substances Control for possible oversight. This is contained in Condition of Certification WASTE-5. (Ex. 10, p. 114-117.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find:

1. The Project will generate hazardous and non-hazardous wastes during construction and operation.

2. Phase I Environmental Site Assessments carried out by WZI, Inc. found no contamination in the vicinity of the Project footprint.

3. The Project will comply with all applicable laws, ordinances, regulations, and standards and wastes generated during construction and operation of the proposed Project will be managed in an environmentally safe manner.

4. The management of all Project wastes will be in compliance with all applicable laws, ordinances, regulations, and standards.

5. Disposal of Project wastes will not result in significant adverse impacts to existing waste disposal facilities.

6. The Conditions of Certification set forth below and waste management practices detailed in the Application for Certification will reduce all potential waste management impacts to a level of insignificance.

The Commission therefore concludes that implementation of waste management measures proposed in the Application for Certification and implementation of the Conditions of Certification below will not result in any significant adverse impacts from the management of wastes generated during construction and operation of the United Golden Gate Power Project. We further conclude that the Project will conform with all laws, ordinances, regulations, and standards relating to waste management in the pertinent portions as identified in **Appendix A**.

CONDITIONS OF CERTIFICATION

WASTE-1 The project owner shall obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to generating any hazardous waste.

Verification: The project owner shall keep its copy of the identification number on file at the project site and notify the CPM via the monthly compliance report of its receipt.

WASTE-2 Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.

Verification: The project owner shall notify the CPM in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the manner in which project-related wastes are managed.

WASTE-3 Prior to the start of both construction and operation, the project owner shall prepare and submit to the CPM, for review and comment, a waste management plan for all wastes generated during construction and operation of the facility, respectively. The plans shall contain, at a minimum, the following:

- A description of all waste streams, including projections of frequency, amounts generated and hazard classifications;
- Methods of managing each waste, including treatment methods and companies contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/reduction plans; and
- Provisions for personnel training and emergency procedures in response to the accidental release of hazardous wastes.

Verification: No less than 30 days prior to the start of construction, the project owner shall submit the construction waste management plan to the CPM for review. The operation waste management plan shall be submitted no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions within 15 days of notification by the CPM (or mutually agreed upon date). In the Annual Compliance Reports, the project owner shall document the actual waste management methods used during the year compared to planned management methods.

WASTE-4 The project owner shall have an environmental professional available for consultation during soil excavation and grading activities. The environmental professional shall be given full authority to oversee any earth moving activities that have the potential to disturb contaminated soil. The environmental professional shall meet the qualifications of such as defined by the American Society for Testing and Materials designation E 1527-97 Standard Practice for Phase I Environmental Site Assessments as evidenced by one of the following or similar credentials: (1) Certified Industrial Hygienist with experience in worker exposure monitoring, (2) Qualified Environmental Professional certification, (3) Registered Environmental Assessor II, or (4) Registered Professional Engineer with experience in remedial investigation and feasibility studies, (5) Registered Professional Geologist.

Verification: At least 30 days prior to the start of construction, the project owner shall submit the qualifications and experience of the environmental professional to the CPM for approval.

WASTE-5 If potentially contaminated soil is unearthed during excavation at either the proposed site or linear facilities as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the environmental professional shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and file a written report to the project owner and CPM stating the recommended course of action. Depending on the nature and extent of contamination, the environmental professional shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If, in the opinion of the environmental professional, significant remediation may be required, the project owner shall contact representatives of the San Francisco Department of Public Health and the Berkeley Regional Office of the California Department of Toxic Substances Control for guidance and possible oversight.

Verification: The project owner shall submit any reports filed by the environmental professional to the CPM within five days of their receipt.

VI. ENVIRONMENTAL ASSESSMENT

A. BIOLOGICAL RESOURCES

In this section we address analyses of potential impacts to biological resources from the UGGPP. The analysis is primarily directed toward impacts to state and federally listed species, species of special concern, wetlands, and other areas of critical biological concern. The Commission reviews information regarding the affected biotic community, the potential environmental impacts associated with the construction and operation of the proposed project, and where necessary, specifies mitigation planning and compensation measures to reduce potential impacts to non-significant levels. We also determine compliance with applicable laws, ordinances, regulations and standards (LORS), and specify Conditions of Certification.

The proposed UGGPP is located on the western shore of the San Francisco Bay, approximately 9.3 miles south-southeast of the city of San Francisco, California. The site is within the boundaries of the San Francisco International Airport (SFIA), which is bounded by the Bay to the east and the communities of South San Francisco, San Bruno, and Millbrae to the north, west, and south, respectively. (Ex. 10, p. 238.)

SUMMARY OF THE EVIDENCE

To support Applicant s position, wetlands biologist Ross Doberteen testified regarding the impacts the Project could have upon biological resources. He directed the reconnaissance-level field inspections and the technical research for the biological studies associated with the Project. He also sponsored section 5.6 of the AFC (Ex., section 5.6) as well as a portion of Exhibit 3. (Ex. 12, Doberteen.)

The analysis carried out by Commission staff experts is based, in part, on information provided as of September 29, 2000 from El Paso s Application For Certification (AFC) (El Paso 2000a) [staff s Issue Identification Report], El Paso s supplemental AFC material submitted October 17, 2000, and staff s November 13, 2000 site visit. (Ex. 10, p. 237.)

The Staff witnesses noted in their testimony that the proposed Project will be built in a parking lot currently used by United Airlines and located immediately north of the United Airlines Maintenance Operations Center east of the existing UCI power plant. Topography on the site is flat with elevations ranging between 10-15 feet above sea level. The proposed Project site is bordered by industrial land uses to the immediate west, east, and south. The San Francisco Bay is located approximately 500 feet to the northeast. There are no surface waters or wetlands located on the site. A small inlet of tidal marsh and mudflats lies several hundred feet to the north of the site. This area is known as the San Bruno Slough and is dominated primarily by cordgrass, pickleweed, and saltgrass vegetation. (Ex. 10, p. 238.)

The Staff witnesses stated that because the Project site is predominantly paved with asphalt and is currently used as a United Airlines parking lot, there is no habitat for plants or sensitive plant or animal species. In addition, there are no new linear facilities, such as transmission lines or pipelines, proposed for this project and all disturbances will be limited to on-site.

Staff concluded that the proposed facility would cause no change in habitat quality or values than what already exists at the site. Further, there are no special status plant or animal species that are known to occur on or in the immediate vicinity of the project site. Therefore, the construction and operation of the proposed project is not expected to adversely affect sensitive biological resources in the region. (Ex. 10, p. 240.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. The Project is proposed to be located on the western shore of the San Francisco Bay, approximately 9.3 miles south-southeast of the city of San Francisco, California. The site is within the boundaries of the San Francisco International Airport (SFIA).

2. The Project will not impose significant adverse effects on any protected species.

3. The measures specified in the Conditions of Certification will adequately mitigate the potential direct, indirect, and cumulative adverse effects of the United Golden Gate Power Project upon biological resources to below a level of significance.

4. With the implementation of the mitigation measures, the Project will conform with all applicable laws, ordinances, regulations, and standards governing biological resources.

The Commission therefore concludes that implementation of the Conditions of Certification below will ensure that construction and operation of the United Golden Gate Power Project will not create any significant direct, indirect, or cumulative adverse impacts to biological resources, and that the Project will conform with all applicable laws, ordinances, regulations, and standards relating to biological resources as identified in the pertinent portion of **Appendix A** of this Decision.

CONDITIONS OF CERTIFICATION

BIO-1 The project owner shall develop and implement a CPM-approved Worker Environmental Awareness Program in which each of its employees, as well as employees of contractors and subcontractors who work on the project site or related facilities during construction and operation are informed about sensitive biological resources in the vicinity of the site and avoidance measures.

Protocol: The Worker Environmental Awareness Program must:

1. consist of an on-site or training center presentation in which supporting written material is made available to all participants;
2. discuss the locations and types of sensitive biological resources in the vicinity of the project;
3. state that all wetlands and areas of open water shall be avoided during construction and operation of the proposed project;
4. state that all equipment shall be stored in designated construction zones or areas that are currently considered non-sensitive species habitat;
5. state that pets shall not be permitted on the project site during construction activities;
6. state that all food-related trash shall be disposed of in closed containers only and regularly removed from the project site;
7. state that no firearms will be allowed in the project area; and
8. state that the use of all herbicides and other hazardous chemicals shall be minimized in the project area.

The specific program must be administered by a competent individual(s) acceptable to the CPM. Each participant in the on-site Worker Environmental Awareness Program shall sign a statement declaring that the individual understands and shall abide by the guidelines set forth in the program materials. The person administering the program shall also sign each statement.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall provide copies of the Worker Environmental Awareness Program, all supporting materials, and the name and qualifications of the person(s) administering the program to the CPM for approval. The project owner shall state in the monthly compliance report the number of persons who have completed the training in the prior month. The signed statements for the construction phase shall be kept on file by the project owner and made available for examination by the CPM for a period of six months after the start of commercial operation. During project operation, signed statements for active project personnel shall be kept on file for a duration of their employment and for six months after termination.

B. SOIL AND WATER RESOURCES

The project is located on the western shore of the Lower San Francisco Bay as defined by the San Francisco Regional Water Quality Control Board (SFRWQCB), within the South Bay Basin hydrologic planning area. The surface water of the Bay is located approximately 500 feet to the north; there is no surface water within the site footprint. The area has a Mediterranean climate, with mild wet winters and cool dry summers. Summer temperatures range from 50s to low 70s (¡F) with winter temperatures ranging from mid 40s to mid 50s (¡F). The prevailing winds blow from the northwest at 5-10 mph throughout the area. Normal annual precipitation is approximately 19.7 inches, with the highest monthly average falling in January at 4.4 inches. (Ex. 10, p. 248.)

SUMMARY OF THE EVIDENCE

James M. Brady testified on behalf of the Project, sponsoring sections 5.4 and 5.5 of the AFC into evidence to support his conclusion that the Project will comply with relevant LORS and will have no adverse impact on soil or water resources. (Ex. 1; Ex. 12, Brady.)

Staff witnesses Mike Krolak and Joe O Hagan conducted the analysis for the Staff and sponsored it as their testimony. (Ex. 10, pp. 247-256.) They concluded that the proposed UGGPP will not contribute to any significant project-specific impacts to soil resources. Use of recycled wastewater from the United Airlines Metal Removal Plant (MRP) for project process water demand is a beneficial use of this water source. Use of potable quality water from the MRP for occasional process make-up during MRP high demand periods will not adversely affect potable water supplies. Disposal of certain waste water streams into SFIA s sanitary waste system would violate SFIA s Tenant Improvement Guide as proposed; these streams must be discharged to appropriate waste systems. Condition of Certification SOIL & WATER 3 requires Applicant to resolve this

matter prior to construction. Dependence solely on United MRP effluent for process water may result in water shortage, affecting UGGPP s reliability. (Ex. 10, p. 254.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. Soils in the project area are subject to wind and water erosion.

2. Applicant has submitted a draft erosion control plan for the construction phase of the Project which identified best management practices to be used to control erosion and the discharge of contaminated stormwater offsite.

3. The Project s compliance with existing and new permits will result in no significant water quality degradation.

4. The construction and operation of the Project will not cause any significant or cumulative adverse impacts to soil and water resources.

5. Implementation of the Conditions of Certification will ensure that the Project will conform with all applicable laws, ordinances, regulations, and standards related to soil and water resources and identified in the appropriate portion of Appendix A of this Decision.

We therefore conclude that with implementation of the Conditions of Certification, construction and operation of the United Golden Gate Power Project will create no signification direct, indirect, or cumulative adverse impacts to soil or water resources.

CONDITIONS OF CERTIFICATION

SOIL & WATER 1: Prior to the initiation of site mobilization, the project owner shall submit a final erosion control plan for San Francisco International Airport review and Energy Commission staff approval. The final plan shall contain all the elements of the draft plan with

changes made to address the final design of the project. Stormwater controls shall be addressed in the plan as well.

Verification: The final erosion control plan shall address all comments of the San Francisco International Airport and be submitted to the Energy Commission Compliance Project Manager (CPM) for approval 30 days prior to the initiation of site mobilization.

SOIL & WATER 2: Prior to any site mobilization operations, the project owner shall obtain a grading permit from the San Francisco International Airport.

Verification: No less than 30 days prior to site mobilization, the project owner will submit for approval one set of design plans/specifications and other supporting data specified within Articles 502 and 503 of the San Francisco International Airport Tenant Improvement Guide to the CPM. Upon CPM approval, the project owner shall submit the application and required plans to the San Francisco Airport Commission.

SOIL & WATER 3: Prior to construction, the project owner shall receive approval from the San Francisco Airport Commission for the disposal of any wastewater stream to be discharged into airport systems as authorized under Article 504 of the San Francisco International Airport Tenant Improvement Guide. The project owner shall submit descriptions of all wastewater streams and expected volumes to be discharged to San Francisco International Airport systems to San Francisco Airport and Energy Commission staff. These descriptions shall include chemical water quality analyses.

Verification: Thirty days prior to start of construction, a wastewater analysis shall be submitted to the CPM for review and the San Francisco Airport for approval. Written copies of documents verifying approval by the San Francisco International Airport shall be sent to the Energy Commission CPM. Annual Compliance Reports shall contain data regarding wastewater quality, volume, and means of disposal.

C. CULTURAL RESOURCES

The Commission s primary concerns in its cultural resource analysis are to ensure that all potential impacts are identified and that significant adverse impacts are avoided or reduced to a level of insignificance. The determination of potential impacts to cultural resources from the proposed United Golden Gate Power Plant, Phase I (UGGPP) is required by the Siting Regulations of the Commission and by the California Environmental Quality Act (CEQA). Three aspects of cultural resources were addressed in Applicant s and in Staff s analysis: prehistoric archaeological resources, historic period resources, and ethnographic resources.

SUMMARY OF THE EVIDENCE

Applicant s witness for cultural resources testimony was Christian Gerike, who supervised the field inspections and the technical research for the cultural resources studies associated with the Project. The witness also sponsored section 5.7 of Exhibit 1 and associate Appendices, as well as a portion of exhibit 3 associated with cultural resources. Mr. Gerike summarized his testimony by stating that the Project, as described in the AFC and with the Conditions of certification will satisfy all laws, ordinances, regulations and standards. Furthermore, with regard to cultural resources, the Project will not cause any significant adverse impacts on the environment. (Ex. 12, Gerike.)

Staff witness Gary Reinoehl stated in his testimony that within one mile of the Project site eighteen cultural resources have been identified and evaluated as not meeting the minimum requirements for eligibility for the National Register of Historic Places. Within 1500 feet of the project area, the U.S. Coast Guard Air Station was identified and found to be eligible for the National Register of Historic Places as a district. He opined that the addition of the power plant will be an additional minor change to the immediate surroundings of the U.S. Coast Guard

Air Station. However, in his view the change will not materially impair the eligibility of the U.S. Coast Guard Air Station district and will not constitute a substantial adverse change in the significance of this historical resource. (Ex. 10, p. 213.)

The Staff witness noted the possibility that Project construction could encounter potentially significant archeological resources. In his view, if the following Conditions of Certification are properly implemented, the Project will comply with applicable laws, ordinances, regulations, and standards, and no significant adverse direct, indirect, or cumulative impacts to cultural resources will occur.

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record,

1. Few known cultural resources exist in the general Project area.

2. Construction activities associated with the United Golden Gate Power Project and related facilities present the greatest potential for adverse impacts to cultural resources.

3. The Conditions of Certification which follow contain measures which will assure adequate mitigation of impacts to any cultural resources encountered during construction and modernization of the Project site.

We therefore conclude that implementation of the Conditions of Certification will assure that significant adverse impacts do not occur to cultural resources as a result of Project construction or operation, and that implementation of the Conditions of Certification below will assure that the United Golden Gate Power Project will comply with all applicable laws, ordinances, regulations, and standards pertaining to cultural resources set forth in the appropriate portion of **Appendix A** of this Decision.

CONDITIONS OF CERTIFICATION

CUL-1 Prior to the start of ground disturbance (defined in the **GENERAL CONDITIONS** section), the project owner shall provide the California Energy Commission (Energy Commission) Compliance Project Manager (CPM) with the name and statement of qualifications of its Cultural Resource Specialist (CRS), and an alternate CRS, if an alternate is proposed, who would be responsible for implementation of all cultural resources Conditions of Certification.

Protocol: The statement of qualifications for the CRS and alternate shall include all information needed to demonstrate that the specialist meets the minimum qualifications specified by the National Park Service, Heritage Preservation Services and shall be qualified by the Register of Professional Archaeologists (RPA). The minimum qualifications include the following:

1. a graduate degree in anthropology, archaeology, California history, cultural resources management, or a comparable field;

2. at least three years of archaeological resource mitigation and field experience in California; and

3. at least one year experience in each of the following areas:
   a. leading archaeological resource field surveys;
   b. leading site and artifact mapping, recording, and recovery operations;
   c. marshaling and use of equipment necessary for cultural resources recovery and testing;
   d. preparing recovered materials for analysis and identification;
   e. determining the need for appropriate sampling and/or testing in the field and in the lab;
   f. directing the analyses of mapped materials; and recovered artifacts;
   g. completing the identification and inventory of recovered cultural resources material; and
   h. preparing appropriate reports to be filed with the receiving curation repository, the SHPO, and the appropriate regional archaeological information center.

The statement of qualifications shall include:

a. a list of specific projects that the specialist has previously worked on;

b. the role and responsibilities of the specialist for each project listed; and

c. the names and phone numbers of contacts familiar with the specialist s work on these referenced projects.

Verification: At least 45 days prior to the start of ground disturbance, the project owner shall submit the name and statement of qualifications of its CRS and alternate CRS to the CPM for review and approval.

At least ten days, prior to the start of any ground disturbance, the project owner shall confirm in writing to the CPM that the approved CRS will be available at the start date and is prepared to implement the cultural resource Conditions of Certification.
At least ten days prior to the termination or release of a CRS, the project owner shall obtain CPM approval of the replacement specialist by submitting to the CPM the name and a statement of qualifications of the proposed new CRS.

CUL-2 Prior to the start of ground disturbance, the project owner shall provide the CRS and the CPM with maps and drawings showing the footprint of the power plant. Maps provided will include the USGS 7.5 minute topographic quadrangle map and a map at an appropriate scale (e.g., 1:2000 or 1 = 200) for plotting individual artifacts. In addition, the project owner shall provide a set of these maps to the CPM at the same time that they are provided to the specialist. If the footprint of the power plant or project components change, the project owner shall provide maps and drawings reflecting these changes, to the CRS and the CPM within five days. Maps shall show the location of all areas where surface disturbance may be associated with project-related access roads, and any other project components.

Verification: At least 40 days prior to the start of ground disturbance, the project owner shall provide the CRS and the CPM with the maps and drawings. Copies of maps or drawings reflecting changes to the footprint of the power plant and/or project components shall be submitted to the CRS and the CPM within five days of the changes.

CUL-3 Prior to the start of ground disturbance, the CRS shall prepare, and the project owner shall submit to the CPM for review and approval, a Cultural Resources Monitoring and Mitigation Plan (CRMMP), identifying general and specific measures to minimize potential impacts in the event of an unanticipated discovery.

Protocol: The CRMMP shall include, but not be limited to, the following elements and measures.

a. Identification of the person(s) expected to perform monitoring tasks; a description of each team member s qualifications and their responsibilities; and the reporting relationships between project construction management and the mitigation and monitoring team.

b. A discussion of the inclusion of Native American observers or monitors, in the event of an unanticipated discovery, the procedures to be used to select them, and their role and responsibilities.

c. A discussion of the location(s) where monitoring of project construction activities is deemed necessary by the CRS. The specialist will determine the size or extent of the areas where monitoring is to occur and will establish the percentage of the time that the monitor(s) will be present.

d. A discussion of the requirement that all cultural resources encountered will be recorded and mapped (may include photos) and that, as a minimum, all significant or diagnostic resources will be collected for analysis and eventual curation into a retrievable storage collection in a public repository or museum. The public repository or museum must meet the standards and requirements for the curation of cultural resources set forth at Title 36 of the Federal Code of Regulations, Part 79.

e. A discussion of the availability and the designated specialist s access to equipment and supplies necessary for site mapping, photographing, and recovering any cultural resource materials encountered during construction.

f. Identification of the public institution that has agreed to receive any data and cultural resources recovered during monitoring and mitigation work. Discussion of any requirements, specifications, or funding needed for curation of the materials to be delivered for curation and how they will be met. Also the name and phone number of the contact person at the institution shall be included.

Verification: At least 30 days prior to the start of ground disturbance, the project owner shall provide the CRMMP, prepared by the CRS, to the CPM for review and approval.

CUL-4 Prior to the start of ground disturbance, the CRS shall prepare an employee training plan. The project owner shall submit the cultural resources training plan to the CPM for review and approval. If use of a video is anticipated as a component of the training program, a copy

of the script of the video shall be submitted to the CPM for review and approval.

Protocol: The training plan and all program components will be submitted to the CPM. The drafts of training plan and the program components will be reviewed and approved. The training program shall discuss the potential to encounter cultural resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources.

The training shall include a lecture and/or a video that will address the following topics: (1) applicable state and federal laws pertaining to cultural resources; (2) cultural materials that, upon discovery, will require notification of the construction supervisor, cultural resources monitor, and/or CRS; and (3) authority of the CRS, alternate CRS, or cultural resources monitor(s) to halt or redirect construction activities that have the potential to affect cultural resources. The training program shall also include the set of resource reporting procedures and work curtailment procedures that workers are to follow if previously unknown cultural resources are encountered during project activities. The training program shall include the statement that the CRS, alternate CRS or cultural resources monitor has the authority to halt construction in the event of an unanticipated discovery. The employees shall be given a small durable Environmental Awareness Training Manual that includes all of the legal and procedural information necessary to fulfil the Conditions of Certification and contact names and numbers of the CRS and alternate CRS.

A form shall be developed as part of the cultural resources awareness program for the workers to sign that certifies (1) their completion of the environmental awareness training program, (2) their understanding of their responsibilities under the program, and (3) their comprehension of potential legal penalties that could be sought against them individually should they violate applicable laws.

The training program shall be presented by the CRS or qualified member of the cultural resources team(s) approved by the CPM and may be combined with other training programs prepared for biological resources, paleontological resources, hazardous materials, or any other areas of interest or concern.

Verification: At least 30 days prior to the start of ground disturbance; the project owner shall submit to the CPM for review and approval, the proposed employee training plan and its components (e.g. the script of the proposed video if one is proposed). The project owner shall provide the name and resume of the individual(s) performing the training.

CUL-5 Prior to the start of ground disturbance, and throughout the project construction period as needed for all new employees, the project owner shall ensure that the designated cultural resource trainer(s) provide(s) the CPM-approved cultural resources training to all project managers, construction supervisors, and workers. The project owner shall ensure that the designated trainer provides the workers with the CPM-approved set of procedures for reporting any sensitive resources that may be discovered during ground disturbance and the work curtailment procedures that the workers are to follow if previously unknown cultural resources are encountered during construction.

Training at the project site may be discontinued after all foundations at the site are completed and the CRS has inspected the site and determined that no cultural resources will be impacted. Training shall continue for project personnel working in the vicinity of other project components that will disturb native soils.

Verification: In each Monthly Compliance Report, the project owner shall provide the CPM with documentation that the designated cultural resource trainer(s) has/have provided to all project managers, construction supervisors, and workers hired in the month to which the report applies, the CPM-approved cultural resources training and the set of resource reporting and work curtailment procedures.

After installation of all foundations at the project site, if the project owner wishes to discontinue training at the project site, the project owner shall provide a letter to the CPM indicating that the CRS has inspected the project site and has not observed any cultural resources that may be impacted by the project.

CUL-6 The CRS, alternate or the monitor(s) shall have the authority to halt or redirect construction if previously unknown cultural resource sites or materials are encountered or if known resources may be impacted in a previously unanticipated manner.

If such resources are found, the halting or redirection of construction shall remain in effect until:

a. The specialist has notified the CPM and the project owner of the find and the work stoppage;

b. The specialist, the project owner, and the CPM have conferred and determined what, if any, data recovery or other mitigation is needed; and

c. Any necessary data recovery and mitigation has been completed.

The specialist, the project owner, and the CPM shall confer within five working days of the notification of the CPM to determine what, if any, determination of significance, data recovery or other mitigation is needed.

If data recovery or other mitigation measures are required, the specialist and team members shall monitor construction activities and implement data recovery and mitigation measures, as needed.

If unearthed cultural resources appear to be Native American in origin, a monitor who traces ancestry to the affected area shall be added to the cultural resource team. The Native American monitor shall be present during any monitoring of cultural resources that appear to be Native American in origin.

All required data recovery and mitigation shall be completed expeditiously unless all parties agree to additional time.

Verification: At least ten days prior to the start of ground disturbance, the project owner shall provide the CPM with a letter confirming that the CRS, alternate and monitor(s) have the authority to halt construction activities in the vicinity of a cultural resource find.

For any cultural resource encountered, the project owner shall notify the CPM within 24 hours after the find.

Within seven days of obtaining a Native American monitor, the project owner shall notify the CPM by letter that the monitor has been obtained.

CUL-7 Prior to the start of ground disturbance, and each week throughout project construction, the project owner shall provide the CRS with a current schedule of anticipated project activity in the following month and a map indicating the area(s) where the construction activities will occur. The CRS shall consult daily with the project superintendent or construction field manager to confirm the area(s) to be worked on the next day(s).

Verification: Ten days prior to the start of ground disturbance, and in each Monthly Compliance Report thereafter, the project owner shall provide the CPM with a copy of each weekly schedule of the construction activities. The project owner shall notify the CPM when all ground disturbing activities, including landscaping, are completed.

CUL-8 Throughout monitoring and mitigation phases of the project, the CRS, alternate and monitor(s) shall keep a daily log of any resource finds and the progress or status of the resource monitoring, mitigation, preparation, identification, and analytical work being conducted for the project. The daily logs shall indicate where and when monitoring has taken place, where monitoring has been deemed unnecessary, and where cultural resources were found.

The CRS shall prepare a weekly summary of the daily logs on the progress or status of cultural resource-related activities.

The CRS and monitor(s) may informally discuss the cultural resource monitoring and mitigation activities with Energy Commission technical staff.

Verification: Throughout the project construction period, the project owner shall ensure that the daily log(s) and the weekly summary reports prepared by the CRS and monitor(s) are available for periodic audit by the CPM.

CUL-9 The CRS, alternate CRS, or cultural resources monitor(s) shall be present at times the specialist deems appropriate to monitor ground disturbance.

Protocol: If the CRS determines that monitoring is necessary in certain portions of the project area or project components, the designated specialist shall notify the project owner and the CPM of the planned monitoring. The CRS shall use milepost markers and boundary stakes placed by the project owner to identify areas where monitoring is being activated and deemed necessary.

Verification: Throughout the project construction period the project owner shall include in the Monthly Compliance Reports to the CPM copies of the weekly summary reports prepared by the CRS regarding cultural resource monitoring.

CUL-10 The project owner shall ensure that the CRS performs the recovery, preparation for analysis, analysis, preparation for curation, and delivery for curation of all cultural resource materials encountered and collected during the monitoring, data recovery, mapping, and mitigation activities related to the project.

Verification: The project owner shall maintain in its compliance files, copies of signed contracts or agreements with the museum(s), university (ies), or other appropriate research specialists. The project owner shall maintain these files for the life of the project and the files shall be kept available for periodic audit by the CPM. Information as to the specific location of sensitive cultural resource site shall be kept confidential and accessible only to qualified cultural resource specialists.

CUL-11 Following completion of data recovery and site mitigation work, the project owner shall ensure that the CRS prepares a proposed scope of work for the Cultural Resources Report (CRR). The project owner shall submit the proposed scope of work to the CPM for review and approval.

Protocol: The proposed scope of work shall include (but not be limited to):

a. discussion of any analysis to be conducted on recovered cultural resource materials;

b. discussion of possible results and findings;

c. proposed research questions which may be answered or raised by analysis of the data recovered from the project; and

d. an estimate of the time needed to complete the analysis of recovered cultural resource materials and to prepare the CRR.

Verification: The project owner shall ensure that the CRS prepares the proposed scope of work within 90 days following completion of the data recovery and site mitigation work. Within seven days after completion of the proposed scope of work, the project owner shall submit it to the CPM for review and approval.

CUL-12 The project owner shall ensure that the CRS prepares a CRR. The project owner shall submit the report to the CPM for review and approval.

Protocol: The CRR shall include (but not be limited to) the following:

a. For all projects:

1. description of pre-project literature search, surveys, and any testing activities;

2. maps showing areas surveyed or tested;

3. description of any monitoring activities;

4. maps, including maps using a 7.5 minute USGS topographic base, of any areas monitored; and
5. conclusions and recommendations.

b. For projects in which cultural resources were encountered, include the items specified under a and also provide:
   1. site and isolate records and maps;
   2. description of testing for, and determinations of, significance and potential eligibility; and
   3. a discussion of the research questions answered or raised by the data from the project.

c. For projects regarding which cultural resources were recovered, include the items specified under a and b and also provide:
   1. a description of the methods employed in the field and laboratory; a description (including drawings and/or photos) of recovered cultural materials;
   2. results and findings of any special analyses conducted on recovered cultural resource materials;
   3. an inventory list of recovered cultural resource materials; an interpretation of the site(s) with regard to the research design; and
   4. the name and location of the public repository receiving the recovered cultural resources for curation.

Verification: The project owner shall ensure that the CRS completes the CRR within 90 days following completion of the analysis of the recovered cultural materials. Within seven days after completion of the report, the project owner shall submit the CRR to the CPM for review and approval.

CUL-13 The project owner shall submit an original, an original-quality copy, and a computer disc copy (or other format to meet the repository s requirements), of the CPM-approved CRR to the public repository to receive the recovered data and materials for curation, with copies to the State Historic Preservation Officer (SHPO), the appropriate regional California Historical Resources Information System information center(s). If the report is submitted to any of these entities on a computer disc, the disc files must meet SHPO requirements for format and content.

Protocol: The copies of the CRR to be sent to the entities specified above shall include the following (based on the applicable scenario [a, b, or c] set forth in condition Cul-12):

a. originals or original-quality copies of all text;

b. originals of any topographic maps showing site and resource locations;

c. originals or original-quality copies of drawings of significant or diagnostic cultural resource materials found during pre-construction surveys or during project monitoring and mitigation and subjected to post-recovery analysis and evaluation.

d. photographs of any cultural resource site(s) and the various cultural resource materials recovered during project monitoring and mitigation and subjected to post-recovery analysis and evaluation. The project owner shall provide the curation repository with a set of negatives for all of the photographs.

Verification: Within 30 days after receiving approval of the CRR, the project owner shall provide to the CPM documentation that the report has been sent to the public repository receiving the recovered data and materials for curation, the SHPO and the regional California Historical Resources Information System information center(s).

For the life of the project the project owner shall maintain in its compliance files copies of all documentation related to the filing of the CPM-approved CRR with the public repository receiving the recovered data and materials for curation.

CUL-14 Following the filing of the CPM-approved CRR with the appropriate entities, specified in condition CUL-13, the project owner shall ensure that all cultural resource materials, maps, and data collected during data recovery and mitigation for the project are delivered to a public repository that meets the US Secretary of Interior requirements for the curation of cultural resources. The project owner shall pay any fees for curation required by the repository.

Verification: The project owner shall ensure that all recovered cultural resource materials are delivered for curation within 30 days after providing the CPM-approved CRR to the entities specified in CUL-13.

For the life of the project the project owner shall maintain in its compliance files, copies of signed contracts or agreements with the public repository to which the project owner has delivered for curation all cultural resource materials collected during data recovery and mitigation for the project.

D. GEOLOGICAL AND PALEONTOLOGICAL RESOURCES

This section addresses the Project s potential construction and operational impacts on geological hazards, geological and paleontological resources, and surface water hydrology. Paleontological resources include the fossilized remains or trace evidence of prehistoric plants or animals, which are preserved in soil or rock. These fossils are scientifically important because they help document the evolution of particular groups of organisms and the environment in which they lived.

SUMMARY OF THE EVIDENCE

Applicant sponsored the testimony of James Allen on the Project s potential impacts to paleontological resources. Mr. Allen concluded that the Project will comply with all applicable LORS and with the Conditions of certification, will not have any significant adverse impacts on such resources. He supported his analysis by sponsoring section 5.8 of Exhibit 1 and paleontological portion of Exhibit 2. (Ex. 12.)

Commission staff witness Robert Anderson testified that the Project is located in the San Francisco Bay sub-unit of the Coast Range physiographic province. The Project site is not crossed by known active faults. No surface water bodies are located at the Project. Site geology consists of artificial fill, alluvium, and Bay Muds. The site is located within a parking lot, paved with asphaltic cement, adjacent to the United Airlines Maintenance facility at the San Francisco Airport. The parking lot is underlain by artificial fill. Bedrock at the site consists of claystone and sandstone of the Franciscan formation. Bedrock at the project occurs at a depth of 150 feet below existing grade. He noted that there is an unconformity between the bedrock and the overlying alluvium, since the age of the earth units abruptly changes from Cretaceous age bedrock to Pleistocene age alluvium. (Ex. 10, p. 258.)

The fill beneath the parking lot consists of loose to compact brown fine silty sand and gravel. The fill varies in thickness from 8 to 11 feet). There are two units of mud beneath the project area, Young Bay Muds and Old Bay Muds. The Young Bay Muds beneath the fill consist of very soft to soft gray to dark gray silty clay with some intermittent layers of peat. The Old Bay Muds beneath the site consist of gray to blue-gray stiff to very stiff clay with traces of sand and silt. The Bay Mud units are separated by a unit of alluvium. The alluvium is made up of stiff to hard sandy clay and dense to very dense clayey and silty sand. The Old Bay Muds tend to be more consolidated that the Young Bay Muds and tend to provide better foundation support than the Young Bay Muds. (Id.)

The project site lies at an elevation of approximately 8 to 10 feet above mean sea level. Existing grade at the power plant site is less than 5%. The existing site drainage is sheet flow in nature and drains locally to the north and east. The groundwater elevation at the project varies from approximately 3.5 to 4.5 feet above mean sea level. (Id.)

The closest active fault to the project is the San Andreas fault which is located 2.2 miles west of the project. The average peak horizontal ground acceleration estimated for the site is 0.53g) and is based upon a moment magnitude 8.0 earthquake occurring along the San Andreas fault at a distance of 2.2 miles from the project. (Ex. 10, p. 259.)

The staff witness concluded that the applicant will likely comply with applicable LORS. In his opinion the Project will have no adverse impact with respect to geological and paleontological resources and surface water hydrology. Applicant will comply with applicable LORS for geological hazards, geological and paleontological resources and surface water hydrology. Furthermore, with the adoption of the Conditions of Certification in this area and with the Conditions of Certification for surface water hydrology located in the **Soil and Water**

Resources section of this document, the Project will have not significant adverse impacts. (Ex.10, p. 262.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find:

1. No known geological and paleontological resources exist in the Project area.

2. The evidence establishes that there are no known geologic resources of recreational, commercial, or scientific value that may be affected by the Project.

3. The United Golden Gate Power Project, Phase 1 will have no significant impact on geological resources.

4. Construction and ground disturbance activities associated with construction of the Project have a minor potential to impose direct, indirect, and cumulative impacts to paleontological resources.

5. The Conditions of Certification will ensure that activities associated with the Project will cause no significant direct, indirect, or cumulative adverse impacts to paleontological resources.

6. Implementation of the Conditions of Certification will ensure that the project will be constructed and operated in compliance with applicable laws, ordinances, regulations, and standards identified in the appropriate portion of Appendix A of this Decision.

We therefore conclude that the Project will not cause any significant adverse direct, indirect, or cumulative impacts to geological or paleontological resources, and will comply with all applicable laws, ordinances, regulations, and standards.

CONDITIONS OF CERTIFICATION

GEO-1 Prior to the start of construction, the project owner shall assign to the project an engineering geologist(s), certified by the State of California, to carry out the duties required by the 1998 edition of the California Building Code (CBC) Appendix Chapter 33, Section 3309.4. The certified engineering geologist(s) assigned must be approved by

the Compliance Project Manager (CPM). The functions of the engineering geologist can be performed by the responsible geotechnical engineer, if that person has the appropriate California license.

Verification: At least 30 days (or a lesser number of days mutually agreed to by the project owner and the Chief Building Official (CBO)) prior to the start of construction, the project owner shall submit to the CPM for approval the name(s) and license number(s) of the certified engineering geologist(s) assigned to the project. The submittal should include a statement that CPM approval is needed. The CPM will approve or disapprove of the engineering geologist(s) and will notify the project owner of its findings. If the engineering geologist(s) is subsequently replaced, the project owner shall submit for approval the name(s) and license number(s) of the newly assigned individual(s) to the CPM. The CPM will approve or disapprove of the engineering geologist(s) and will notify the project owner of the findings.

GEO-2 Prior to the completion of the final design of the project, the owner shall have a liquefaction analysis conducted for the power plant site and related linear facilities. The liquefaction analysis shall be implemented by following the recommended procedures contained in Recommended Procedures for Implementation of California Division of Mines and Geology Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California dated March 1999. (The document is available through the Southern California Earthquake Center at the University of Southern California.)

Verification: The project owner shall include in the application for a grading permit (see Condition of Certification **GEO-3**, below) a report of the liquefaction analysis, and a summary of how the results of this analysis were incorporated into the project grading plan, for the CBO s review and comment.

GEO-3 The assigned engineering geologist(s) shall carry out the duties required by the 1998 CBC, Appendix Chapter 33, Section 3309.4 Engineered Grading Requirement, and Section 3318.1 — Final Reports. Those duties are:

1. Prepare the Engineering Geology Report. This report shall accompany the Plans and Specifications when applying to the CBO for the grading permit.

2. Monitor geologic conditions during construction.

3. Prepare the Final Engineering Geology Report.

Protocol: The Engineering Geology Report required by the 1998 CBC Appendix Chapter 33, Section 3309.3 Grading Designation, shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and an opinion on the adequacy of the site for the intended use as affected by geologic factors.

The Final Engineering Geology Report to be completed after completion of grading, as required by the 1998 CBC Appendix Chapter 33, Section 3318.1, shall contain the following: A final description of the geology of the site and any new information disclosed during grading; and the effect of same on recommendations incorporated in the approved grading plan. The engineering geologist shall submit a statement that, to the best of his or her knowledge, the work within their area of responsibility is in accordance with the approved Engineering Geology Report and applicable provisions of this chapter.

Verification: (1) Within 15 days after submittal of the application(s) for grading permit(s) to the CBO, the project owner shall submit a signed statement to the CPM stating that the Engineering Geology Report has been submitted to the CBO as a supplement to the plans and specifications and that the recommendations contained in the report are incorporated into the plans and specifications. (2) Within 90 days following completion of the final grading, the project owner shall submit copies of the Final Engineering Geology Report required by the 1998 CBC Appendix Chapter 33, Section 3318 Completion of Work, to the CBO, and to the CPM on request.

PAL-1 Prior to the start of project construction, the designated paleontological resource specialist shall prepare a Paleontological Resources Monitoring and Mitigation Plan to identify general and specific measures to minimize potential impacts to sensitive paleontological resources, and submit this plan to the CPM for review and approval. After CPM approval, the project owner s designated paleontological resource specialist shall be available to implement the Monitoring and Mitigation Plan, as needed, throughout project construction.

Protocol: In addition to the project owner s adoption of the guidelines of the Society of Vertebrate Paleontologists (SVP 1994) the owner shall develop a Paleontological Resources Monitoring and Mitigation Plan that shall include, but not be limited to, the following elements and measures:

- The name and resume and the availability for its designated paleontological resource specialist, to the CPM for review and approval. The CPM shall provide approval or disapproval of the proposed paleontological resource specialist;
- A discussion of the sequence of project-related tasks, such as any pre-construction surveys, fieldwork, flagging or staking; construction monitoring; mapping and data recovery; fossil preparation and recovery; identification and inventory; preparation of final reports; and transmittal of materials for curation;
- Identification of the person(s) expected to assist with each of the tasks identified within this condition for certification, and a discussion of the mitigation team leadership and organizational structure, and the inter-relationship of tasks and responsibilities;
- Where monitoring of project construction activities is deemed necessary, the extent of the areas where monitoring is to occur and a schedule for the monitoring;
- An explanation that the designated paleontological resource specialist shall have the authority to halt or redirect construction in the immediate vicinity of a vertebrate fossil find until the significance of the find can be determined;
- A discussion of equipment and supplies necessary for recovery of fossil materials and any specialized equipment needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits;
- Inventory, preparation, and delivery for curation into a retrievable storage collection in a public repository or museum, which meets the Society of Vertebrate Paleontologists standards and requirements for the curation of paleontological resources; and
- Identification of the institution that has agreed to receive any data and fossil materials recovered during project-related monitoring and mitigation work, discussion of any requirements or specifications for materials delivered for curation and how they will be met, and the name and phone number of the contact person at the institution.

The project owner shall maintain in its compliance files copies of signed contracts or agreements with the designated paleontological resource specialist and other qualified research specialists who will ensure the necessary data and fossil recovery, mapping, preparation for analysis, analysis, identification and inventory, and preparation for and delivery of all significant paleontological resource materials collected during data recovery and mitigation for the project. The project owner shall maintain these files for a period of three years

after completion and approval of the CPM-approved Paleontological Resources Report and shall keep these files available for periodic audit by the CPM.

Verification: At least thirty (30) days prior to the start of construction on the project, the project owner shall provide the CPM with a copy of the Paleontological Resources Monitoring and Mitigation Plan prepared by the designated paleontological resource specialist for review and approval. If the plan is not approved, the project owner, the designated paleontological resource specialist, and the CPM shall meet to discuss comments and negotiate necessary changes. If the approved, designated paleontological resource specialist is replaced prior to completion of project mitigation, the project owner shall obtain CPM approval of the new designated paleontological resource specialist by submitting the name and qualifications of the proposed replacement to the CPM, at least ten (10) days prior to the termination or release of the preceding designated paleontological resource specialist.

PAL-2 Prior to the start of construction, and throughout the project construction period as needed for all new employees, the project owner and the designated paleontological resource specialist shall prepare and conduct CPM-approved training to all project managers, construction supervisors, and workers who operate ground disturbing equipment. The project owner and construction manager shall provide the workers with the CPM-approved set of procedures for reporting any sensitive paleontological resources or deposits that may be discovered during project-related ground disturbance.

Protocol: The paleontological training program shall discuss the potential to encounter paleontological resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources.

The training shall also include the set of reporting procedures that workers are to follow if paleontological resources are encountered during project activities. The training program shall be presented by the designated paleontological resource specialist and may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or any other areas of interest or concern.

Verification: At least (30) thirty days prior to the start of project construction, the project owner shall submit to the CPM for review, comment, and written approval, the proposed employee training program and the set of

reporting procedures the workers are to follow if paleontological resources are encountered during project construction.

If the employee training program and set of procedures are not approved, the project owner, the designated paleontological resource specialist, and the CPM shall meet to discuss comments and negotiate necessary changes, before the beginning of construction.

Documentation for training of additional new employees shall be provided in subsequent Monthly Compliance Reports, as appropriate.

PAL-3 The project owner shall ensure preparation of a Paleontological Resources Report by the designated paleontological resource specialist. The Paleontological Resources Report shall be completed following completion of the analysis of the recovered fossil materials and related information. The project owner shall submit the paleontological report to the CPM for approval.

Protocol: The report shall include (but not be limited to) a description and inventory list of recovered fossil materials; a map showing the location of paleontological resources encountered; determinations of sensitivity and significance; and a statement by the paleontological resource specialist that project impacts to paleontological resources have been mitigated.

Verification: The project owner shall submit a copy of the Paleontological Resources Report to the CPM for review and approval under a cover letter stating that it is a confidential document. The report is to be prepared by the designated paleontological resource specialist within 90 days following completion of the analysis of the recovered fossil materials.

VII. LOCAL IMPACT ASSESSMENT

A. LAND USE

The land use analysis of the United Golden Gate Power Project Phase I (UGGPP) focuses on two main issues: the project s consistency with local and state land use plans, ordinances and policies; and the project s compatibility with existing and planned land uses. Indirect land use impacts such as noise, traffic, visual resources, air quality, biology, transmission line safety and nuisance, or public health are discussed in those specific areas of this Presiding Member s Proposed Decision.

SUMMARY OF THE EVIDENCE

Applicant s witness sponsored section 5.9 of the AFC, and related data responses. (Ex. 1, section 5.9; Ex. 12, Brady.) The testimony established that construction of the Project is scheduled from March through July 2001. Construction activities would be short-term and temporarily increase the amount of noise, traffic, dust, and emissions in the area. Construction of the Project will also impact the United Airlines Employee Parking. Because there are no agricultural land uses in the area, the project would not impact agriculture or soil resources.

The Project will have a 140-foot stack. The applicant has provided a Notice of Proposed Construction or Alteration application for the Project. Based upon their aeronautical study which showed that the 140-foot stack does not exceed obstruction standards and would not be a hazard to air navigation, the FAA has issued a Determination Of No Hazard To Air Navigation for the project.

San Mateo County Housing and Community Development recently constructed a 9,000 square foot homeless shelter at 301 North Access Road in the City of

South San Francisco, approximately 500 feet northeast of the project site. The shelter will house about 90 persons between the hours of 5:00 p.m. to 7:00 a.m. from November through March. Based on the construction schedule in the AFC, construction of the UGGPP will not impact clients of the homeless shelter. (Id.)

Staff analysis of Project impacts indicated Staff does not expect the Project to significantly impact land uses in the area. The proposed industrial use of the site is compatible with other industrial land uses in the area. (Ex. 10, p. 121.)

The Staff witness noted that the proposed Phase I UGGPP project is part of a two-phase operation that is proposed to be completed by 2003. The Phase I UGGPP project is intended to provide additional power to both SFIA and the population of the San Francisco peninsula. Under emergency conditions, the entire generating capacity of the project could be directed to SFIA. Both phases of the power plant project will be contained within the SFIA, which is heavily industrialized with landside and airside facilities. Therefore, the witness testified that the Project is not likely to induce a change in land use or have direct or indirect cumulative impacts to land use. (Id.)

Based on facility requirements for SFIA, a series of development concepts was generated in the Master Plan for the following airport land use areas: terminal area, airline support, airfreight, aircraft maintenance, general aviation, airport support, and non-airport-related facilities. These concepts reviewed potential locations within the airport property and opportunities and constraints related to near- and long-term development. In conjunction with proposed development at SFIA, staff does not expect the UGGPP to have a cumulative impact on land use at SFIA or land use in the vicinity of the project. (Ex. 10.)

The proposed project is located at the southwest corner of North Access Road and Coast Guard Road on property currently leased by United Airlines from the Airport Commission. El Paso proposes to sublease the land from United Airlines.

However, as of the evidentiary hearing, no sublease for the Project site had been negotiated. Based on statements made at the Prehearing conference, the parties intend to notify the Commission as negotiations proceed.

CCSF representatives reviewed whether or not a parcel map is required for the sublease and determined that no parcel map is required. Therefore, the Project is able to comply with the Subdivision Map Act. In Addition, Staff s analysis of the various land use provisions which apply to the Project establishes that the Project by itself, and cumulatively, will have no land use impacts that cannot be mitigated to a level below significance. (Ex. 10, 119-125.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. The proposed project would be located within the existing boundaries of the San Francisco International Airport (SFIA) industrial complex.

2. The Project site is an existing asphalt-covered parking lot adjacent to the existing UCI cogeneration power plant and related facilities.

3. The nearest sensitive receptors are those at the 9,000 square foot Safe Harbor homeless shelter at 301 North Access Road, approximately 500 feet northeast of the Project site. Other than Safe Harbor, the nearest residences are located approximately 4,000 feet from the Project site.

4. The Project is subject to the 1989 Master Plan of the San Francisco International Airport (SFIA) and must obtain a lease from SFIA in order to construct its facility at the proposed site.

5. With mitigation, the proposed Project is consistent with the applicable land use requirements. The Project is compatible with existing and planned land uses, and would not preclude or unduly restrict existing or planned land uses.

We therefore conclude that construction and operation of the Project will not result in significant adverse direct, indirect, or cumulative land use impacts.

Implementation of the Conditions of Certification will ensure that the Project will meet all applicable laws, ordinances, regulations, and standards governing land use.

The United Golden Gate Power Project complies with local land use designations and if constructed and operated under the Conditions of Certification which follow, the Project will not impose significant adverse impacts upon local land uses.

CONDITIONS OF CERTIFICATION

LAND USE-1 Prior to the start of ground disturbance, the project owner shall submit a site development plan for the project to the Airport Commission for their review and comment, and to the California Energy Commission Compliance Project Manager (CPM) for review and approval. The site development plan shall comply with the SFIA Master Plan. The project owner shall provide a letter of comment from the Airport Commission addressing whether the project is consistent with the provisions of the SFIA Master Plan.

Verification: At least 30 days prior to the start of any ground disturbance related to construction, the project owner shall submit the proposed site development plan and a copy of the letter of comment from the SFIA to the CPM for review and approval. The project owner shall submit any required revisions within 15 days of notification by the CPM.

LAND USE-2 Prior to the start of ground disturbance, the project owner shall submit to the CPM a copy of (1) the amendment to the lease between the SFIA and United Airlines, and (2) the sublease between United Airlines and the Applicant, both fully executed by the parties.

Verification: At least 15 days prior to the start of any ground disturbance related to construction, the project owner shall submit the copies of the executed agreements to the CPM.

B. TRAFFIC AND TRANSPORTATION

In this section, we examine the extent to which the United Golden Gate Power Project will affect the regional and local transportation systems in the vicinity of the Project. In some cases large numbers of construction workers can, over the course of the construction period, increase roadway congestion and affect traffic flow. In addition, the transportation of large pieces of equipment can require rail use and the alternation of traffic flows and roadway use. Traffic related to plant operation does not tend to produce similar types of impacts because of the limited number of vehicles involved.

Therefore, during these licensing proceedings, we identified the roads and routings which will be used; potential traffic problems associated with those routings, the anticipated number of deliveries of oversized/overweight equipment; anticipated encroachments upon public rights-of-way; the frequency of and routes associated with, delivery of hazardous materials; and the availability of alternative transportation methods.

SUMMARY OF THE EVIDENCE

Applicant offered its testimony on traffic and transportation impacts of the Project in the form of its section 5.11 of the AFC. (Ex. 1, section 5.11) The witness testified that the Project will be consistent with traffic and transportation policies and restrictions which apply. He added that, with the Conditions of Certification recommended by the Staff, there will be no significant adverse environmental impacts in the area of traffic and transportation. (Ex. 12, Brady)

Staff witness David Flores conducted an independent analysis of Project impacts on traffic and transportation and offered the analysis in the Staff Assessment and as testimony. (Ex. 10, pp. 127-143.) Included in his testimony are the following tables which indicate the intersections that would most likely be affected by the

project. **TRAFFIC AND TRANSPORTATION Table 1** shows that roadway intersections which will be affected by UGGPP Project traffic presently operate at acceptable levels of service (LOS of level D or better) during the a.m. and p.m. peak hour under existing conditions (Ex. 1, Table 5.11-1).

TRAFFIC AND TRANSPORTATION Table 1

Existing Intersection Levels of Service

AM Peak Hour			**PM Peak Hour**	
Signalized Intersections	**Average Delay (seconds/ Vehicles)**	**Level of Service**	**Average Delay (seconds/ Vehicle)**	**Level of Service**
North Access Road/I-380 Ramps	12.0	B	14.0	B
South Airport Blvd/I-380 Ramps	24.1	C	54.5	D
South Airport Blvd/Lot DD Garage	27.1	C	44.8	D
South Airport Blvd/UAL West Lot	8.8	A	12.9	B
South Airport Blvd/ San Bruno Avenue	38.0	D	39.7	D

Source: El Paso 2000a, AFC pg. 5.11-3, Table 5.11-1; Ex. 10, p. 133.

Table 2 shows the impact of the Project on the same intersections during the peak of Project construction. The difference is not significant.

TRAFFIC AND TRANSPORTATION Table 2

Construction Period Intersection Levels of Service

Based on full build-out of UGGPP

AM Peak Hour			**PM Peak Hour**	
Signalized Intersections	**Average Delay (seconds/ Vehicles)**	**Level of Service**	**Average Delay (seconds/ Vehicle)**	**Level of Service**
North Access Road/I-380 Ramps	15.0	B	13.4	B
South Airport Blvd/I-380 Ramps	26.1	C	52.3	D
South Airport Blvd/Lot DD Garage	32.5	C	52.2	D
South Airport Blvd/UAL West Lot	19.6	B	34.7	C
South Airport Blvd/ San Bruno Avenue	40.4	D	39.1	D

Source: UGGPP 2000, AFC pg. 5.11-8, Table 5.11-5; Ex. 10, p. 135.)

On behalf of the Staff, Mr. Flores concluded that during the construction phase, increased roadway demand resulting from the daily movement of workers and materials will slightly increase congestion and delay, although the level of service on each of the studied state highway segments and highway intersections would be unchanged. During the operational phase,

increased roadway demand resulting from the daily movement of workers and materials will be negligible. (Ex. 10, p. 140.)

Furthermore, all transportation and handling of hazardous substances can be mitigated to insignificance by compliance with federal, state, and local standards and permits established to regulate the transportation of hazardous substances. (Id.)

Since construction activities have the potential to damage local roadways. Applicant will be required to repair damaged roadways to their original condition. In addition, Applicant shall enforce a policy that all project-related parking occurs in designated parking areas; therefore, construction-period parking is not considered a significant project impact. (Id.)

Finally, the witness noted that the addition of UGGPP construction traffic to the local roadways and state highways under cumulative conditions is not expected to have any significant cumulative impacts. The project s level of traffic generation will diminish between the construction and operational phases such that an increase in background traffic will not be significant. (Id.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. Construction of the United Golden Gate Power Project will cause no significant increased traffic on the local area s road network.

2. The Project s work shift management plan will minimize the Project s contribution to congestion during peak construction hours.

3. The additional amounts of traffic attributable to Project construction and operation will not significantly degrade performance of the region s roads.

4. The transportation of hazardous substances can be mitigated to insignificance by compliance with federal and state standards.

5. Most traffic and transportation impacts resulting from the Project will occur during the construction phase.

6. Traffic impacts associated with the Project will be insignificant after the Project commences operation.

We therefore conclude that with implementation of the Conditions of Certification, and the construction and operation of the Project will not result in significant adverse impacts to the area s road or other transportation networks.

With the implementation of the Conditions of Certification, the Project will be constructed and operated in conformity with all applicable traffic and transportation laws, ordinances, regulations, and standards.

CONDITIONS OF CERTIFICATION

TRANS-1 The project owner shall comply with California Department of Transportation (Caltrans), the City of South San Francisco and the San Francisco Airport Commission limitations on vehicle sizes and weights. In addition, the project owner or their contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for roadway use.

Verification: In the Monthly Compliance Reports, the project owner shall submit copies of any oversize and overweight transportation permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.

TRANS-2 The project owner or their contractor shall comply with California Department of Transportation (Caltrans) and the City of South San Francisco limitations for encroachment into public rights-of-way and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.

Verification: In the Monthly Compliance Reports, the project owner shall submit copies of any encroachment permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.

TRANS-3 The project owner shall ensure that all federal and state regulations for the transport of hazardous materials are observed.

Verification: The project owner shall include in its Monthly Compliance Reports copies of all permits and licenses acquired by the project owner and/or subcontractors concerning the transport of hazardous materials.

TRANS-4 Following completion of project construction of the power plant and all related facilities, the project owner shall repair all local roads used for construction purposes to their pre-construction condition.

Protocol: The project owner shall photograph, videotape or digitally record images of local roads to be used for construction purposes as identified in the consultation traffic control plan developed for condition TRANS-5, including North Access Road from South Airport Blvd to the project entrance. The project owner shall provide the Compliance Project Manager (CPM), the City of South San Francisco, Caltrans (as necessary) and the San Francisco International Airport with a copy of these images. The project owner shall also notify Caltrans about the schedule for project construction. The purpose of this notification is to postpone any planned roadway resurfacing and/or improvement projects until after the project construction has taken place and to coordinate construction related activities associated with other projects.

Verification: At least 30 days prior to construction, the project owner shall submit to the CPM, the City of South San Francisco, Caltrans (as necessary) and the San Francisco International Airport the photographs, videotapes or digitally record images of local roads to be used for construction purposes as identified in the construction traffic control plan developed for condition TRANS-5. At least 30 days prior to construction, the project owner shall submit to the CPM a copy of the letter notifying Caltrans of the project construction schedule.

Within 30 days after completion of project construction, the project owner shall meet with the CPM, the City of South San Francisco, Caltrans and the San Francisco International Airport (as needed) to determine and receive approval for the actions necessary and schedule to complete the repair of identified sections of public roadways to original or as near original condition as possible. Following completion of road improvements, if necessary, the project owner shall provide to the CPM a letter from the City of South San Francisco stating their satisfaction with the road improvements.

TRANS-5 The project owner shall develop a construction traffic control and transportation demand implementation program that limits construction-period truck and commute traffic to off-peak periods in coordination with the City of South San Francisco, Caltrans and the San Francisco Airport Commission. Specifically, this plan shall include the following restrictions on construction traffic addressing the following issues for the Phase I power plant construction:

- provide a redesigned access entry into the project site to provide adequate truck turning radii in order to help facilitate truck turning movements.
- establish construction work hours outside of the peak traffic periods to ensure that construction workforce traffic occurs during off-peak hours.
- schedule of heavy vehicle equipment and building materials deliveries to occur during off-peak hours.
- maintain access to adjacent commercial properties.

Verification: At least 30 days prior to start of site preparation or earth moving activities, the project owner shall provide to the City of South San Francisco, Caltrans and the San Francisco Airport Commission for review and comment, and to the CPM for review and approval, a copy of their construction traffic control plan and transportation demand implementation program.

TRANS-6 During construction of the power plant and all related facilities, the project owner shall enforce a policy that all project related parking occurs in designated parking areas.

Verification: At least 30 days prior to start of construction, the project owner shall submit a parking and staging plan for all phases of project construction to the San Francisco Airport Commission for review and comment, and to the CPM for review and approval.

C. VISUAL RESOURCES

Visual resources are the natural and the cultural features of the environment that one sees. Visual quality is considered to be the value of these visual resources. Scenic resources are those visual resources that contribute positively to visual quality. CEQA requires an examination of a project s visual impacts on the environment which have the potential to cause substantial degradation to the existing visual character of the site and its surroundings. (Cal. Code of Regs., tit. 14, Appendices G and I.) Under this topic area, it is thus relevant to assess whether the Project will create a substantial intrusion upon the existing viewshed.

SUMMARY OF THE EVIDENCE

Applicant s witness James Brady of WZI, Inc sponsored section 5.13 of the AFC which analyzed the Project s impacts on the local viewshed. (Ex. 1, section 5.13; Ex. 12, Brady.)

The Staff s visual analysis prepared by Eric Knight was presented as testimony and included in the Staff Assessment. (Ex. 10, pp. 165-200.) In the analysis Mr. Knight described the visual setting of the Project site. The proposed power plant site is located on North Access Road, west of Coast Guard Road, at the north end of the SFIA. The project site is currently a United Airlines (UAL) employee parking lot. North Access Road borders the north side of the project site. North of the road is a grassy open space area. Marshes, formed by a small inlet of San Francisco Bay, are located in this area. Immediately to the west of the project site is the United Airlines Maintenance Operations Center (UAL MOC). A parking lot and 20-foot high jet blast screens are located to the east of the project site.

The area north of the project area and east of U.S. 101 is developed with commercial, office, technology parks, and industrial uses. No residential uses are located in this area. The nearest residential area is located about 0.75 mile west

of the site, and west of U.S. 101 in the City of San Bruno. From points along 7th Avenue in this residential area, approximately 28 feet of the Project s exhaust stack would be visible above the UAL MOC. Visual quality from this view area toward the project site is very low because of the presence of freeways and industrial buildings and lack of views of the San Francisco Bay and hills. While parts of the Project are visible from several viewpoints, intervening structures, freeways, and vegetation would obstruct many of the views.

The Staff witness explained that Key Observation Points[10], or KOPs, are used to help in the evaluation of Project impacts by comparing the appearance of the Project before and after construction from each of the locations selected. KOPs include locations that are chosen to be representative of the most critical areas from which the project may be seen.

For each view area, Staff considered the existing visual setting and the visual changes that the project would cause to determine impact significance. Energy Commission staff conducted several site visits and verified that the four KOPs selected by the applicant, with the inclusion of a fifth KOP suggested by staff, are representative of the view areas and are appropriate for this analysis. (Ex. 10, p. 200.)

To assess the existing visual setting, Staff considered the following elements:

Visual Quality, Visual Sensitivity, Visibility, Viewer Exposure, Visual Susceptibility. These are described in the Staff Assessment. (Ex. 10, p. 167-168.) To assess the visual changes that the project would cause, Staff considered the following factors: Dominance, Contrast, View Blockage. (Ex. 10, p.168.)

[10] The use of KOPs or similar view locations is common in visual resource analysis. The US Bureau of Land Management and the US Forest Service use such an approach.

The AFC states that lights required by the Federal Aviation Administration (FAA) for aviation safety would be located on the exhaust stack. However, the FAA determined that the project would not be a hazard to air navigation, so marking and lighting of the stack will not be necessary for aviation safety. The Applicant has also proposed measures to reduce lighting impacts of the Project, and these have been expanded a proposed Condition of Certification. Proper implementation of these measures is expected to minimize lighting and keep lighting impacts to less than significant levels. (Ex. 10, p. 187.)

Power plants that utilize wet cooling towers have the potential to cause visible vapor plumes created by the condensation of water in the plumes of moist air emitted from the cooling towers. The Project would use air cooling instead of wet cooling towers so no potential exists for visible plume formation from cooling. Energy Commission staff has determined that there is no potential for visible plume formation from the exhaust stack considering the high temperature of the exhaust (850¡ Fahrenheit) and the normal range of weather conditions at the project site. Therefore, visual impacts from visible water vapor plumes will not be insignificant. Due to the high temperature of the exhaust, other less obvious visible phenomena, such as visible heat distortion effects, may be possible. Staff does not expect significant visual effects from potential heat distortion effects. (Id.)

The Staff witness concluded that effective implementation of the applicant s proposed mitigation measures, as modified, expanded, and augmented by staff s recommendations, is expected to reduce all potential visual impacts due to the proposed project to less than significant levels. With the proposed mitigation, the project is also expected to be in compliance with applicable laws, ordinances, regulations, and standards regarding visual resources.

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. The United Golden Gate Power Project is proposed to be located entirely within the boundaries of the existing United Airline Maintenance area of the San Francisco International Airport.

2. The Project does not require the installation of offsite transmission lines, thus avoiding related visual impacts.

3. The construction activities associated with the Project are sufficiently far from residences and are of such a short-term nature (lasting less than one year) that visual impacts due to construction would not be significant. Construction activities would be visible to people in the immediate area of the Project site. Operation impacts of the Project on these viewers would be less than significant, so the short-term visual impacts due to construction would also be less than significant.

4. The tying of natural gas, water, and wastewater connections to existing underground systems will create no visual impacts.

5. The Project will not create any significant adverse visual impacts.

6. With the implementation of the Conditions of Certification, the Project will be in compliance with applicable laws, ordinances, regulations, and standards regarding visual resources.

The Conditions of Certification which follow impose all feasible mitigation capable of sufficiently reducing the visual impacts below a level of significance.

With implementation of Conditions of Certification, the Project will meet all applicable laws, ordinances, regulations, and standards relating to visual resources which are contained in Appendix A of this Decision.

We therefore conclude that construction and operation of the United Golden Gate Power Project will not cause any significant direct, indirect, or cumulative adverse visual impacts.

CONDITIONS OF CERTIFICATION

VIS-1 Prior to first turbine roll, the project owner shall treat the project structures, stack, and tank visible to the public in a non-reflective finish and color to blend with the surroundings.

Protocol: The project owner shall submit a treatment plan for the project to the California Energy Commission Compliance Project Manager (CPM) for review and approval. The treatment plan shall include:

- specification, and 11 x 17 color simulations, of the treatment proposed for use on project structures, including structures treated during manufacture;
- a list of each major project structure, building, and tank, specifying the color(s) proposed for each item;
- documentation that a non-reflective finish will be used on all major project elements visible to the public;
- a detailed schedule for completion of the treatment; and,
- a procedure to ensure proper treatment maintenance for the life of the project.

The project owner shall also submit the treatment plan to the City of South San Francisco (SSF) and the San Francisco Bay Conservation and Development Commission (BCDC) for their review and comment.

If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the plan, the project owner shall submit a revised plan to the CPM.

After approval of the plan by the CPM, the project owner shall implement the plan according to the schedule and shall ensure that the treatment is properly maintained for the life of the project.

For any structures that are treated during manufacture, the project owner shall not specify the treatment of such structures to the vendors until the project owner receives notification of approval of the treatment plan by the CPM.

The project owner shall not perform the final treatment on any structures until the project owner receives notification of approval of the treatment plan from the CPM.

The project owner shall notify the CPM within one week after all precolored structures have been erected and all structures to be treated in the field have been treated and the structures are ready for inspection.

Verification: At least 60 days prior to ordering the first structures other than the turbine package that are color treated during manufacture, the project owner shall submit its proposed plan to the CPM for review and approval. All plans submitted to the CPM should also be required to be submitted to SFIA for review.

If the CPM notifies the project owner that any revisions of the plan are needed before the CPM will approve the plan, within 30 days of receiving that notification, the project owner shall submit to the CPM a revised plan.

Not less than 30 days prior to the start of commercial operation, the project owner shall notify the CPM that all structures treated during manufacture and all structures treated in the field are ready for inspection.

The project owner shall provide a status report regarding treatment maintenance in the Annual Compliance Report.

VIS-2 All fencing for the project shall be non-reflective. Fencing for the project shall comply with the applicable requirements in the San Francisco Airport Tenant Improvement Guide.

Protocol: Prior to ordering the fencing the project owner shall submit to the CPM for review and approval the specifications for the fencing documenting that such fencing will be non-reflective. The submittal to the CPM shall include evidence that the fencing meets the requirements of the San Francisco Airport Tenant Improvement Guide.

The project owner shall also submit the fencing specifications to the SSF and BCDC for review and comment, and shall forward any SSF and BCDC comments to the CPM.

If the CPM notifies the project owner that revisions of the specifications are needed before the CPM will approve the submittal, the project owner shall submit to the CPM revised specifications.

The project owner shall not order the fencing until the project owner receives approval of the fencing submittal from the CPM.

The project owner shall notify the CPM within one week after the fencing has been installed and is ready for inspection.

Verification: Prior to first turbine roll and at least 30 days prior to ordering the non-reflective fencing, the project owner shall submit the specifications to the CPM for review and approval. All plans submitted to the CPM should also be required to be submitted to SFIA for review

If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within 30 days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within seven days after completing installation of the fencing that the fencing is ready for inspection.

VIS-3 The project owner shall not install lighting on the exhaust stack, unless required by the Federal Aviation Administration or the San Francisco Airport Commission. Lighting shall comply with the San Francisco Airport Tenant Improvement Guide. Prior to first turbine roll, the project owner shall design and install all lighting such that light bulbs and reflectors are not visible from public viewing areas and illumination of the vicinity and the nighttime sky is minimized. To meet these requirements:

Protocol: The project owner shall develop and submit a lighting plan for the project to the CPM for review and approval. The lighting plan shall include the following provisions:

- No lighting is installed on the stack;
- Lighting is designed so that exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of this outdoor lighting shall be such that the luminescence or light source is shielded to prevent light trespass outside the project boundary;
- High illumination areas not occupied on a continuous basis such as maintenance platforms or the main entrance are provided with switches or motion detectors to light the area only when occupied;
- A lighting complaint resolution form (following the general format of that in the lighting complaint resolution form found in Exhibit 10, p. 199) will be used by plant operations, to record all lighting complaints received and document the resolution of those complaints. All records of lighting complaints shall be kept in the on-site compliance file.

The submittal to the CPM shall include evidence that lighting complies with the San Francisco Airport Tenant Improvement Guide.

The project owner shall also submit the lighting plan to the SSF, BCDC, and the Airport Commission for review and comment.

If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the plan, the project owner shall prepare and submit to the CPM a revised plan.

Lighting shall not be installed before the plan is approved. The project owner shall notify the CPM when the lighting has been installed and is ready for inspection.

Verification: At least 60 days before ordering the exterior lighting, the project owner shall provide the lighting plan to the CPM for review and approval. All plans submitted to the CPM should also be required to be submitted to SFIA for review.

If the CPM notifies the project owner that any revisions of the plan are needed before the CPM will approve the plan, within 30 days of receiving that notification the project owner shall submit to the CPM a revised plan.

The project owner shall notify the CPM within seven days of completing exterior lighting installation that the lighting is ready for inspection.

VIS-4 The project owner shall install signs, including construction signs, in conformance with the applicable requirements of San Francisco Airport Tenant Improvement Guide.

Protocol: The project owner shall submit a signage plan to the CPM for review and approval. The submittal shall include evidence that the plan meets the requirements of the San Francisco Airport Tenant Improvement Guide.

If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the submittal, the project owner shall submit to the CPM a revised plan.

The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM.

Verification: Prior to first turbine roll and at least 30 days prior to installing the signs, the project owner shall submit a signage plan to the CPM for review and approval. All plans submitted to the CPM should also be required to be submitted to SFIA for review.

If the CPM notifies the project owner that revisions of the signage plan are needed before the CPM will approve the plan, within 30 days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within seven days after installation of the signs that the signs are ready for inspection.

VIS-5 The project owner shall provide landscaping in conformance with the San Francisco Airport Tenant Improvement Guide.

Protocol: The project owner shall submit a landscaping plan to the CPM for review and approval. The submittal shall include evidence that the plan meets the requirements of the San Francisco Airport Tenant Improvement Guide.

The project owner shall also submit the landscaping plan to the SSF and BCDC for review and comment.

If the CPM notifies the project owner that revisions of the plan are needed before the CPM will approve the submittal, the project owner shall submit to the CPM a revised plan.

The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM.

Verification: Prior to first turbine roll and at least 60 days prior to installing the landscaping, the project owner shall submit the plan to the CPM for review and approval. All plans submitted to the CPM should also be required to be submitted to SFIA for review.

If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within 30 days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within seven days after completing installation of the landscaping that the landscaping is ready for inspection.

D. NOISE

The construction and operation of any power plant creates noise, or unwanted sound. The character and loudness of this sound, the times of day or night during which it is produced, and the proximity of the facility to sensitive receptors combine to determine whether a project s noise will cause significant adverse impacts to the environment. In the licensing process, the Commission evaluates those impacts and determines whether noise produced by project-related activities will be consistent with applicable noise control laws and ordinances.

In this portion of the Decision, we examine the likely noise impacts from the Phase 1 United Golden Gate Power Project and the sufficiency of measures proposed to control them.

SUMMARY OF THE EVIDENCE

Applicant s noise engineer was Chris Papadimos who sponsored section 5.12 of Exhibit 1 and portions of Exhibits 2 and 3. Mr. Papadimos testified that the Project will comply with all applicable LORS relating to noise and that, with the application of the Conditions of Certification, the Project will not have any significant adverse noise impacts on the environment. (Ex.1, section 5.12; Exs. 2, 3, and 12.)

Staff expert Paul H. Miller offered testimony stating that existing land uses in the immediate Project area are predominantly industrial to the north, west and south; San Francisco Bay is to the east. The nearest uses are the UCI cogeneration power plant facility immediately to the west of the project site and the United Airlines Maintenance Operations Center, also immediately to the west of the project site. Some commercial uses (hotels and offices) are located to the north of the site and to the east of US 101. The San Mateo County Housing and Community Development Division (HCD) recently completed construction of a

homeless shelter (Safe Harbor) directly northeast of the project site. Safe Harbor began operating in December 2000. Safe Harbor is on the San Mateo County Transit District (SAMTRANS) bus facility property on Belle Air Island at 301 North Access Road in South San Francisco.

The closest residences to the Project site are in San Bruno at 7th and Walnut, approximately 4,000 feet to the west of the UGGPP site. Safe Harbor is a sensitive receptor approximately 500 feet northeast of the project site, but was constructed to mitigate for the estimated existing noise level of 77.5 dBA, CNEL at the homeless shelter (San Mateo County 2000). (Ex. 10, p. 149.)

SFIA is a major source of noise in the region, with air traffic occurring throughout the day and also to a lesser degree at night. I-380 and US 101 are also major sources of noise near the project site. With both air traffic at SFIA and motor vehicle traffic on Highway 101, the project site is in one of the noisiest locations in the San Francisco Bay Area. The site is also next to another major noise source, the United Airlines Maintenance Operations Center. In addition, an existing cogeneration facility is west of the project site next to the subject maintenance center. (Id.)

Aircraft noise contours for 1996 and 2006 (estimated) indicate that the project site is in an area with CNEL levels above 70 dBA. Although aircraft noise at the airport is expected to be reduced due to the future use of quieter Stage 3 aircraft, the project site is still predicted to have a CNEL above 70 dBA in 2006.

An additional noise source is at the SAMTRANS maintenance facility, directly north of the Project site. This location is approximately 300 feet from the centerline of North Access Road and 700 feet from the existing UCI plant. The operation of the UCI plant generates steady noise between 64 and 66 dBA. Aircraft noise produces maximum noise levels between 65 and 70 dBA. The average measured noise level is 65 dBA L_{eq}.

Construction noise is a temporary phenomenon (although very common at SFIA in recent years); the construction period for the UGGPP facility is scheduled to last approximately 5 months (El Paso 2000c). Construction of an industrial facility such as a power plant is typically and unavoidably noisier than what is usually permissible under noise ordinances. In order to allow the construction of new facilities, construction noise during certain hours is commonly exempt from enforcement by local ordinances. (Ex. 10, p. 150.)

The applicant is proposing a construction schedule from 7 a.m. to 7 p.m., 7 days a week. The applicant has estimated construction noise levels in a very conservative manner (without inclusion of attenuation provided by intervening buildings and other natural terrain obstructions) and found that the maximum increase in noise background levels (L_{90}) from general construction would be about 1.4 dBA or less at the nearest noise-sensitive receptors in San Bruno, and 0.4 dBA or less at the nearest noise-sensitive receptors in South San Francisco (El Paso 2000c). As described on the next page under Power Plant Operation, the Energy Commission defines impacted areas as those that are affected by a 5 dBA increase in noise levels. Since these increases are less than 5 dBA, the impact from general construction would be less than significant to these communities. (Id.) Staff explained that a change of at least 5 dB is required before any noticeable change in community response would be expected. A change of 3 dB is considered a barely noticeable difference. (Ex. 10, p. 163.)

Nevertheless, at the evidentiary hearing of January 26, 2001, the Committee directed Applicant to proposed a more limited schedule for very loud construction noise, if such a limitation is compatible with the established construction time limits. Applicant agreed to report back to the Committee with a proposal.

Except for the Safe Harbor homeless shelter, the nearest sensitive receptors would be exposed to levels at or below 45 dBA when the plant is in operation.

As described earlier, Safe Harbor was recently constructed to be compatible within the noisy environment where it is located.

During its operating life, the UGGPP would be a peaking power plant presenting a steady, continuous noise source when it is operating. As described in the AFC, this plant would be operational between the months of June and October for a three-year period.

The Energy Commission defines the area impacted by the proposed project as that area where there is a potential increase in existing noise levels of 5 dBA or more during operation of the project. Typically, the Commission requires that the 5 dBA be compared against the lowest one-hour L_{90} value, which is usually during nighttime hours where sleep interference is a factor.

Staff evaluated whether the proposed power plant would add an additional 5 dBA increase in noise levels above what the existing power plant and other sources are producing in the area. Staff analysis revealed that it is unlikely the power plant will result in 5 dBA increases above the background at any sensitive receptors. Therefore, the noise generated from UGGPP will not have a significant effect on the local noise environment. (Ex. 10, p. 152.)

The Staff witness concluded that the UGGPP would likely be built and operated to comply with all applicable noise laws, ordinances, regulations and standards, and would likely present no significant adverse noise impacts

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. Construction and operation of the United Golden Gate Power Project will not increase noise levels significantly above existing ambient levels in the surrounding community.

2. The sensitive receptors nearest the Project are located at the Safe Harbor homeless shelter, approximately 500 feet northeast of the Project site in a new facility constructed to mitigate for estimated existing noise levels of 77.5 dBA, CNEL

3. Noise associated with construction activities at the Project will be temporary in nature and mitigated to the extent feasible; therefore, they will not result in a significant impact to the surrounding community.

4. Implementation of the Conditions of Certification, which follow, will ensure that noise levels in the community will not significantly increase as a result of the Project.

5. With implementation of the Conditions of Certification, the Project will be constructed and operated in conformity with the applicable laws, ordinances, regulations, and standards.

We therefore conclude that the United Golden Gate Power Project will not create any significant direct, indirect, or cumulative adverse noise impacts, and will comply with all applicable laws, ordinances, regulations, and standards.

CONDITIONS OF CERTIFICATION

NOISE-1 At least 15 days prior to the start of project-related ground disturbing activities, the project owner shall notify all residents and business owners within one-half mile of the site, by mail or other effective means, of the commencement of project construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project. If the telephone is not staffed 24 hours per day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction in a manner visible to passersby. This telephone number shall be maintained until the project has been operational for at least one year.

Verification: The project owner shall transmit to the Energy Commission Compliance Project Manager (CPM) in the first Monthly Construction Report following the start of project-related ground disturbing activities, a statement, signed by the project manager, attesting that the above notification has been performed, and describing the method of that notification. This statement

shall also attest that the telephone number has been established and posted at the site.

NOISE-2 Throughout the construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all project-related noise complaints.

Protocol: The project owner or authorized agent shall:

- use the Noise Complaint Resolution Form (see Exhibit 1, below, for example), or functionally equivalent procedure acceptable to the CPM, to document and respond to each noise complaint;
- attempt to contact the person(s) making the noise complaint within 24 hours;
- conduct an investigation to determine the source of noise related to the complaint;
- if the noise is project related, take all feasible measures to reduce the noise at its source; and
- submit a report documenting the complaint and the actions taken. The report shall include: a complaint summary, including final results of noise reduction efforts; and if obtainable, a signed statement by the complainant stating that the noise problem is resolved to the complainant s satisfaction.

Verification: Within 30 days of receiving a noise complaint, the project owner shall file a copy of the Noise Complaint Resolution Form, or similar instrument approved by the CPM, with the San Francisco Airport Commission, the applicable city where the noise complaint originated, and with the CPM, documenting the resolution of the complaint. If mitigation is required to resolve a complaint, and the complaint is not resolved within a 30-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is finally implemented.

NOISE-3 Prior to the start of project-related ground disturbing activities, the project owner shall submit to the CPM for review a noise control program. The noise control program shall be used to reduce employee exposure to high noise levels during construction and also to comply with applicable OSHA and Cal-OSHA standards.

Verification: At least 30 days prior to the start of project-related ground disturbing activities, the project owner shall submit to the CPM the above referenced program. The project owner shall make the program available to OSHA upon request.

NOISE-4 The project owner shall conduct an occupational noise survey to identify the noise hazardous areas in the facility. The survey shall be conducted within 30 days after the facility is in full operation, and shall be conducted by a qualified person in accordance with the provisions of Title 8, California Code of Regulations, sections 5095-5099 (Article 105) and Title 29, Code of Federal Regulations, section 1910.95. The survey results shall be used to determine the magnitude of employee noise exposure. The project owner shall prepare a report of the survey results and, if necessary, identify proposed mitigation measures that will be employed to comply with the applicable California and federal regulations.

Verification: Within 30 days after completing the survey, the project owner shall submit the noise survey report to the CPM. The project owner shall make the report available to OSHA and Cal-OSHA upon request.

NOISE-5 Noisy construction work (that which causes offsite annoyance, as evidenced by the filing of a legitimate noise complaint) shall be restricted to
7 a.m. to 7 p.m.

Verification: The project owner shall transmit to the CPM in the first Monthly Construction Report a statement acknowledging that the above restrictions will be observed throughout the construction of the project.

EXHIBIT 1 - NOISE COMPLAINT RESOLUTION FORM

United Golden Gate Power Project (Phase I) (00-AFC-5)
NOISE COMPLAINT LOG NUMBER _____ Complainant s name and address: Phone number: _____
Date complaint received: _____ Time complaint received: _____
Nature of noise complaint:
Definition of problem after investigation by plant personnel: Date complainant first contacted: _____
Initial noise levels at 3 feet from noise source _____ dBA Date: _____ Initial noise levels at complainant s property: _____ dBA Date: _____ Final noise levels at 3 feet from noise source: _____ dBA Date: _____ Final noise levels at complainant s property: _____ dBA Date: _____
Description of corrective measures taken: Complainant s signature: _____ Date: _____
Approximate installed cost of corrective measures: $ _____ Date installation completed: _____ Date first letter sent to complainant: _____ (copy attached) Date final letter sent to complainant: _____ (copy attached)
This information is certified to be correct: Plant Manager s Signature: _____

(Attach additional pages and supporting documentation, as required).

E. SOCIOECONOMICS

The analysis addresses the potential direct and cumulative impacts of the proposed UGGPP project on local communities, community resources, and public services, such as schools, medical, and police services. It also considers the effect of project-related impacts on minority and low-income populations. Executive Order 12898, Federal Actions to address Environmental Justice in Minority Populations and Low-Income Populations, focuses federal attention on the environment and human health conditions of minority communities and calls on agencies to achieve environmental justice as part of this mission. The order requires the U.S. Environmental Protection Agency, all other federal agencies, and state agencies receiving federal funds to develop strategies to address this issue. The agencies are required to identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and/or low-income populations.

SUMMARY OF THE EVIDENCE

Both Applicant and Staff conducted separate analyses to determine whether the Project has the potential to raise environmental justice issues. Both parties applied the federal guidelines, which require federal and state agencies to identify and address disproportionately high adverse human health or environmental effects of projects on minority and low-income populations. The process assesses 1) whether the potentially affected community includes minority and/or low-income populations; and 2) whether the environmental impacts are likely to fall disproportionately on minority and/ or low-income members of the community.

Applicant s analysis is contained in section 5.10 of the AFC which was sponsored into evidence by Applicant s witness Nancy Spitters. She concluded that the Project will be consistent with socioeconomic policies and restrictions and that

Project impacts on resources such as schools, fire and police, etc. will be minimal. (Ex. 1, section 5.10; Ex. 12, Spitters.)

The testimony of Staff expert James Adams, contained in the Staff Assessment, shows that according to 1990 data from the U.S. Census Bureau, about 62 percent of the tracts in the Project area have a white population greater than 50 percent, while the remaining 38 percent of the tracts have a minority population greater than 50 percent.

The demographic profile displayed in **Socioeconomics Figure 2** of the Staff Assessment provides the estimated percentage of people of color by census tract using projected demographic data for the year 2000, which was generated by the marketing firm of Claritas, Inc. (Ex. 10, p. 238.) The estimate for 2000 indicates that 58 percent of the tracts have a minority population greater than 50 percent. Because the Claritas data is an estimate based on the 1990 Census, staff considers the 1990 data to be the most reliable. However, a clear trend toward increased minority population is discernible. **Socioeconomics Table 1** of the Staff Assessment shows the demographic profile for the communities adjacent to the project site. (Ex. 10, p. 237.)

The number of census tracts within six miles of the proposed UGGPP with a population of minority persons greater than 50 percent has increased substantially since 1990. In 1990, 62 percent of the tracts had a majority of white persons. That number has probably decreased to 42 percent. In other words, an estimated 58 percent of the tracts, using the Claritas data, have a greater than 50 percent population of minority persons. Moreover, a number of the minority dominated census tracts are much closer or adjacent to the proposed UGGPP site. (Ex. 10, p. 231.)

The estimated median family income in 2000 for the Bay Area as a whole is approximately $36,000, which is considerably lower than $41,000 estimated

median income for San Mateo County. The County figure is 55% higher than the U. S. average (SAMCEDA 1999).

Even though low-income and minority populations do exist in the immediate area of the Project, the Staff analysis found no significant unmitigated adverse environmental effects associated with the proposed project or cumulative impacts; therefore, no significant adverse impacts to minority or low-income populations are expected to occur. (Ex. 10, p.231.)

The Staff testimony concluded that the United Golden Gate Power Plant, Phase I Project would not cause a significant adverse direct or cumulative impact on housing, employment, schools, public services or utilities. The testimony established further that the Project would have a minor benefit to the Bay Area and San Mateo County and the local vicinity in terms of an increase in local jobs and commercial activity during construction and operation of the facility. The construction payroll and project expenditures would also have a positive effect on the local and regional economy. The Staff Assessment concludes that overall; the UGGPP will have a positive socioeconomic impact on the local and regional area. (Ex. 10, p. 233.)

FINDINGS AND CONCLUSIONS

Based on the uncontroverted evidence of record, we find as follows:

1. The United Golden Gate Power Project will draw primarily upon the local labor force from the Bay Area for construction and operation workers, and have a construction payroll of approximately $750,000-$1 million.

2. The Project will not cause an influx of a significant number of construction or operation workers into the local area.

3. The proposed Project is not likely to have a significant adverse effect on traditional socioeconomic considerations including employment, housing, schools, medical, tax revenues, and fire and police protection.

4. The Project will likely result in increased revenue from sales taxes due to construction activities.

5. The Project owner will recruit employees and purchase materials within the Bay Area to the greatest extent possible.

6. The Applicant estimates it will spend approximately $2-4 million for local purchases of materials and supplies during construction.

7. The Project will have no significant adverse impacts on minority populations in the local area.

8. There is no evidence to establish a measurable diminution of property values as a result of the Project.

We therefore conclude that Implementation of the Conditions of Certification will ensure that Project-related construction and operation activities will not impose any significant adverse socioeconomic impacts.

Implementation of the Conditions of Certification will ensure that the Project will conform with all applicable laws, ordinances, regulations, and standards relating to socioeconomic factors.

In summary, the United Golden Gate Power Project will not result in any significant direct, indirect, or cumulative adverse socioeconomic impacts.

CONDITION OF CERTIFICATIONS

SOCIO-1: The project owner and its contractors and subcontractors shall recruit employees and procure materials and supplies from within the San Francisco Bay Area, and encourage such recruitment and purchases within San Mateo and San Francisco counties first unless:

- to do so will violate federal and/or state statutes;
- the materials and/or supplies are not available; or
- qualified employees for specific jobs or positions are not available; or

- there is a reasonable basis to hire someone for a specific position for outside the local area.

Verification: At least 30 days prior to the start of earth moving activities, the project owner shall submit to the Energy Commission Compliance Project Manager (CPM) copies of contractor, subcontractor, and vendor solicitations and guidelines stating hiring and procurement requirements and procedures. In addition, the project owner shall notify the CPM in each Monthly Compliance Report of the reasons for any planned procurement of materials or hiring outside the local regional area that will occur during the next two months.

Appendix A

LORS: Laws, Ordinances, Regulations, and Standards

AIR QUALITY

FEDERAL

The federal Clean Air Act requires any new major stationary sources of air pollution and any major modifications to existing major stationary sources to obtain a construction permit before commencing construction. This process is known as New Source Review (NSR). Its requirements differ depending on the attainment status of the area where the major facility is to be located. Prevention of Significant Deterioration (PSD) requirements apply in areas that are in attainment of the national ambient air quality standards. The non-attainment area NSR requirements apply to areas that have not been able to demonstrate compliance with national ambient air quality standards. The entire program, including both PSD and non-attainment NSR permit reviews, is referred to as the federal NSR program.

Title V of the federal Clean Air Act requires states to implement and administer an operating permit program to ensure that large sources operate in compliance with the requirements included in the Code of Federal Regulations 40, part 70. A Title V permit contains all of the requirements specified in different air quality regulations that affect an individual project. This project does not trigger Title V permitting.

The U.S. Environmental Protection Agency (EPA) has reviewed and approved the Bay Area Air Quality Management District s regulations and has delegated to the District the implementation of the federal PSD, Non-attainment NSR, and Title V programs. The District implements these programs through its own rules and regulations, which are, at a minimum, as stringent as the federal regulations.

The UGGPP is also subject to the federal New Source Performance Standards (NSPS). These standards include a NOx emissions concentration of no more than 75 parts per million (ppm) at 15 percent excess oxygen (ppm@15%O2), and a SOx emissions concentration of no more than 150 ppm@15%O2.

The U.S. EPA has delegated its Prevention of Significant Deterioration (PSD) and Non-attainment New Source Review (NSR) requirements to the District. This delegation is only done for air districts that are able to demonstrate to the satisfaction of U.S. EPA that their regulatory programs are at least as stringent as the federal PSD and Non-attainment NSR programs. The District will issue an Authority to Construct only after this project secures a license from the California Energy Commission. This permit will be the equivalent to a federal PSD and federal Non-attainment NSR permits.

In addition, the U.S. EPA has also delegated to the District the authority to implement the federal Clean Air Act Title IV acid rain and Title V operating

permit programs. The Title IV regulation requirements will include obtaining a Title IV permit prior to operation, the installation of continuous emission monitors to monitor acid deposition precursor pollutants, and obtaining Title IV emission trading credits. The Title V operating permit is issued only after a facility is in operation and it would be the same as the District s Permit to Operate. Therefore, compliance with the District s rules and regulations will result in compliance with federal requirements.

STATE

California State Health and Safety Code, Section 41700, requires that: no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerate number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The project, assuming full compliance with the District s rules and regulations, should comply with Section 41700 of the California State Health and Safety Code.

LOCAL

As part of the Energy Commission s licensing process, in lieu of issuing a construction permit to the applicant for the UGGPP, the District will prepare and present to the Commission a Determination of Compliance (DOC). The DOC will evaluate whether and under what conditions the proposed project will comply with the District s applicable rules and regulations, as described below. The Energy Commission staff will coordinate its air quality analysis with the District staff as they prepare the DOC, will review and comment on the Preliminary DOC to identify any issues of concern, and will incorporate the Final DOC recommended conditions of certification in supplemental testimony presented to the Committee after the Final DOC is completed.

The project is subject to the specific District rules and regulations that are briefly described below:

REGULATION 2

Rule 1 - General Requirements. This rule contains general requirements, definitions, and a requirement that an applicant submit an application for an authority to construct and permit to operate.

Rule 2 - New Source Review. This rule applies to all new and modified sources. The following sections of Rule 2 are the regulations that are applicable to this project.

- Section 2-2-301 - Best Available Control Technology (BACT) Requirement*: This rule requires that BACT be applied for each pollutant that is emitted in excess of 10 pounds per day.*
- Section 2-2-302 - Offset Requirement, Precursor Organic Compounds and Nitrogen Oxides: *This rule requires that for new or modified projects with an emissions increase of 50 tons per year or more of POCs and/or NOx, offsets shall be provided at a ratio of 1.15 tons of emission reduction credits for each ton of proposed project permitted emissions. For facilities emitting more than 15 but less than 50 tons per year of POCs and/or NOx, offsets, which can be provided by the District from the Small Facility Banking account, are required at a ratio of 1.0 to 1.0.*
- Section 2-2-303 - Offset Requirements, Particulate Matter (TSP), PM10 and Sulfur Dioxide: *If a Major Facility (a project that emits any pollutant greater than 100 tons per year) has a cumulative increase of 1.0 ton per year of PM10 or SO2, emission offsets must be provided for the entire cumulative increase at a ratio of 1.0:1.0.*

  Emission reductions of nitrogen oxides and/or sulfur dioxide may be used to offset increased emissions of PM10 at offset ratios deemed appropriate by the Air Pollution Control Officer.

  A facility that emits less than 100 tons of any pollutant may voluntarily provide emission offsets for all, or any portion, of their PM10 or sulfur dioxide emissions increase at the offset ratio required above (1.0:1.0).
- Section 2-2-606 - Emission Calculation Procedures, Offsets. *This section requires that emission offsets must be provided from the District s Emissions Bank, and/or from contemporaneous actual emission reductions.*

Rule 7 - Acid Rain. This rule applies the requirements of Title IV of the federal Clean Air Act, which are spelled out in Title 40, Code of Federal Regulations, Part 72. The provisions of Part 72 will apply when EPA approves the District s Title IV program, which has not been approved at this time. The Title IV requirements will include the installation of continuous emission monitors to monitor acid deposition precursor pollutants.

REGULATION 6

Regulation 6 - Particulate Matter and Visible Emission. The purpose of this regulation is to limit the quantity of particulate matter in the atmosphere. The following two sections of Regulation 6 are directly applicable to this project:

- Section 301 - Ringelmann No. 1 Limitation: *This rule limits visible emissions to no darker than Ringelmann No. 1 for periods greater than three minutes in any hour.*
- Section 310 - Particulate Weight Limitation*: This rule limits source particulate matter emissions to no greater than 0.15 grains per standard dry cubic foot.*

REGULATION 9

Rule 1 - Limitations

- Section 301: Limitations on Ground Level Sulfur Dioxide Concentration*. This section requires that emissions of sulfur dioxide shall not impact at ground level in excess of 0.5 ppm for 3 consecutive minutes, or 0.25 ppm averaged over 60 minutes, or 0.05 ppm averaged over 24 hours.*
- Section 302: General Emission Limitation*. This rule limits the sulfur dioxide concentration from an exhaust stack to no greater than 300 ppm dry.*

Rule 9 - Nitrogen Oxides from Stationary Gas Turbines. This rule limits gaseous fired, SCR equipped, combustion turbines rated greater than 10 MW to 9 ppm at 15%O2.

REGULATION 10

Rule 26 - Gas Turbines - Standards of Performance for New Stationary Sources. This rule adopts the national maximum emission limits (40 CFR, Part 60) which are 75 ppm NOx and 150 ppm SO2 at 15 percent O2. Whenever any source is subject to more than one emission limitation rule, regulation, provision or requirement relating to the control of any air contaminant, the most stringent limitation applies.

BIOLOGY

FEDERAL

ENDANGERED SPECIES ACT OF 1973

Title 16, United States Code, section 1531 *et seq*., and Title 50, Code of Federal Regulations, part 17.1 *et seq*., designate and provide for protection of threatened and endangered plant and animal species, and their critical habitat.

MIGRATORY BIRD TREATY ACT

Title 16, United States Code, sections 703 through 711, prohibits the take of migratory birds, including nests with viable eggs.

CLEAN WATER ACT OF 1977

Title 33, United States Code, sections 1251—1376, and Code of Federal Regulations, part 30, section 330.5(a)(26). The Act requires the permitting and monitoring of all discharges to surface water bodies. Section 404 permits from the U.S. Army Corps of Engineers for discharges from dredged or fill materials into waters of the U.S., including wetlands, and Section 401 permits from the state water resources control board for the discharge of pollutants are issued under the authority of this Act.

STATE

CALIFORNIA PUBLIC RESOURCES CODE

California Code of Regulations, section 25523(a) through 2098, protects California s rare, threatened, and endangered species.

CALIFORNIA ENDANGERED SPECIES ACT OF 1984

Fish and Game Code, sections 2050 through 2098, protects California s rare, threatened, and endangered species.

CALIFORNIA CODE OF REGULATIONS

Title 14, California Code of Regulations, sections 670.2 and 670.5, lists animals of California designated as threatened or endangered.

FULLY PROTECTED SPECIES

Fish and Game Code, sections 3511, 4700, 5050, and 5515, prohibits take of plants and animals that are fully protected in California.

SIGNIFICANT NATURAL AREAS

Fish and Game Code, section 1930, designates certain areas such as refuges, natural sloughs, riparian areas and vernal pools as significant wildlife habitat.

NATIVE PLANT PROTECTION ACT OF 1977

Fish and Game Code, section 1900 et seq., designates state rare, threatened, and endangered plants.

CULTURAL

Cultural resources are indirectly protected under provisions of the federal Antiquities Act of 1906 (Title 16, United States Code, Section 431-433) and subsequent related legislation, policies, and enacting responsibilities. The following laws, ordinances, regulations, standards, and policies apply to the protection of cultural and ethnographic resources in California. Projects licensed by the Energy Commission are reviewed for compliance with these laws.

FEDERAL

Federal Guidelines for Historic Preservation Projects: The US Secretary of the Interior has published a set of Standards and Guidelines for Archaeology and Historic Preservation. These are considered to be the appropriate professional methods and techniques for the preservation of archaeological and historic properties. The Secretary s standards and guidelines are used by federal agencies, such as the Forest Service, the Bureau of Land Management, and the National Park Service. The State Historic Preservation Office refers to these standards in its requirements for mitigation of impacts to cultural resources on public lands in California.

STATE

Public Resources Code, Section 5020.1 defines several terms, including the following:

> (j) Historical resource includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.
>
> (k) Substantial adverse change means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired.

Public Resources Code, Section 5024.1 establishes a California Register of Historical Resources (CRHR); sets forth criteria to determine significance; defines eligible properties; and lists nomination procedures. The criteria are essentially the same as those used to determine eligibility to the NRHP, but they also stipulate that some properties that may not retain sufficient integrity to meet NRHP standards may still be eligible for the California Register.

Public Resources Code, Section 5097.5 states that any unauthorized removal or destruction of archaeological or paleontological resources on sites located on public land is a misdemeanor. As used in this section, public lands means

lands owned by, or under the jurisdiction of, the state; or any city, county, district, authority, or public corporation; or any agency thereof.

Public Resources Code, Section 5097.98 defines procedures for notification of discovery of Native American artifacts or remains and for the disposition of such materials. If the county coroner determines that the remains are Native American, the coroner is required to contact the Native American Heritage Commission, which is then required to determine the Most Likely Descendant to inspect the burial and to make recommendations for treatment or disposition of the remains and any associated burial items. This section also prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn and sets penalties for these actions.

The California Environmental Quality Act (CEQA) requires analysis of potential environmental impacts of proposed projects and requires application of feasible mitigation measures. CEQA also requires a program for monitoring or reporting on the revisions that the public agency has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.

Public Resources Code Section 21083.2 states that the lead agency determines whether a project may have a significant effect on unique archaeological resources; if so, an EIR shall address these resources. If a potential for damage to unique archaeological resources can be demonstrated, the lead agency may require reasonable steps to preserve the resource in place. Otherwise, mitigation measures shall be required as prescribed in this section. The section discusses excavation as mitigation; limits the applicant s cost of mitigation; sets time frames for excavation; defines unique and non-unique archaeological resources ; and provides for mitigation of unexpected resources.

Public Resources Code Section 21084.1 indicates that a project may have a significant effect on the environment if it causes a substantial adverse change in the significance of a historical resource; the section further defines a historical resource and describes what constitutes a significant historical resource.

CEQA Guidelines, Title 14, California Code of Regulations, Section 15126.4(b) prescribes the manner of maintenance, repair, stabilization, restoration, conservation, or reconstruction as mitigation of a project s impact on a historical resource; discusses documentation as a mitigation measure; and discusses mitigation through avoidance of damaging effects on any historical resource of an archaeological nature, preferably by preservation in place, or by data recovery through excavation if avoidance or preservation in place is not feasible. Data recovery must be conducted in accordance with an adopted data recovery plan.
CEQA Guidelines, Title 14, California Code of Regulations, Section 15064.5 Determining the Significance of Impacts on Historical and Unique Archeological Resource defines the term historical resources, explains when a project may have a significant effect on historical resources, describes CEQA s applicability to

archaeological sites, and specifies the relationship between historical resources and unique archaeological resources. This section states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. It also defines a substantial adverse change for historical resources.

CEQA Guidelines, Title 14, California Code of Regulations, Appendix G, Section V lists questions that are relevant to evaluating a project s impacts on archaeological and historical resources.

Penal Code, Section 622 1/2 states that anyone who willfully damages an object or thing of archaeological or historic interest is guilty of a misdemeanor.

California Health and Safety Code, Section 7050.5 states that if human remains are discovered during construction, the project owner is required to contact the county coroner.

LOCAL

Although the Energy Commission has pre-emptive authority over local laws, it typically ensures compliance with local laws, ordinances, regulations, standards, plans, and policies. The San Francisco Airport Master Plan is the operational plan for the airport property (owned by the City and County of San Francisco). There are no special provisions for cultural resources in the San Francisco Airport Master Plan.

FACILITY DESIGN

The applicable LORS for each engineering discipline such as Civil, Structural, Mechanical and Electrical Engineering are all described in the Application for Certification (AFC), El Paso 2000a, Sections˚3.0, 4.0 and 5.3; Table 7.1-1 and Appendices C through G.

GEOLOGY AND PALEONTOLOGY

The applicable LORS are listed in the AFC, in Sections 5.3, 5.5, 5.8, and 7.0 (El Paso 2000a). A brief description of the LORS for surface water hydrology, paleontological resources, and geological hazards and resources follows:

FEDERAL

There are no federal LORS for geological hazards and resources, paleontological resources, or grading for the proposed project.

STATE AND LOCAL

The California Building Code (CBC) 1998 edition is based upon the Uniform Building Code (UBC), 1997 edition, which was published by the International Conference of Building Officials. The CBC is a series of standards that are used in the investigation, design (Chapters 16 and 18) and construction (including grading and erosion control as found in Appendix Chapter 33). The CBC supplements the UBC s grading and construction ordinances and regulations.

The California Environmental Quality Act (CEQA) Guidelines Appendix G provides a checklist of questions that a lead agency should normally address if relevant to a project s environmental impacts.

- Section (V) (c) asks if the project will directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

- Sections (VI) (a), (b), (c), (d), and (e) pose questions that are focused on whether or not the project would expose persons or structures to geological hazards.

- Sections (X) (a) and (b) pose questions about the project s effect on mineral resources.

The Standard Procedures, Measures for Assessment and Mitigation of Adverse Impacts to Non-renewable Paleontologic Resources (SVP 1994) are a set of procedures and standards for assessing and mitigating impacts to vertebrate paleontological resources. They were adopted in October 1994 by a national organization of vertebrate paleontologists (the Society of Vertebrate Paleontologists).

HAZARDOUS MATERIALS MANAGEMENT

FEDERAL

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III and Clean Air Act of 1990 established a nationwide emergency planning and response program and imposed reporting requirements for businesses which store, handle, or produce significant quantities of extremely hazardous materials. The Act (codified in 40 C. F. R., ⁄ 68.110 et seq.) requires the states to implement a comprehensive system to inform local agencies and the public when a significant quantity of such materials is stored or handled at a facility. The requirements of these Acts are reflected in the California Health and Safety Code, section 25531 et seq.

STATE

The California Health and Safety Code, section 25534, directs facility owners, storing or handling acutely hazardous materials in reportable quantities, to develop a Risk Management Plan (RMP) and submit it to appropriate local authorities, the United States Environmental Protection Agency (EPA), and the designated local Administering Agency for review and approval. The plan must include an evaluation of the potential impacts associated with an accidental release, the likelihood of an accidental release occurring, the magnitude of potential human exposure, any preexisting evaluations or studies of the material, the likelihood of the substance being handled in the manner indicated, and the accident history of the material. This new, recently developed program supersedes the California Risk Management and Prevention Plan (RMPP).

Title 8, California Code of Regulations, Section 5189, requires facility owners to develop and implement effective safety management plans to insure that large quantities of hazardous materials are handled safely. While such requirements primarily provide for the protection of workers, they also indirectly improve public safety and are coordinated with the RMP process.

Title 8, California Code of Regulations, Section 458 and Sections 500 to 515, set forth requirements for design, construction and operation of vessels and equipment used to store and transfer anhydrous ammonia. These sections generally codify the requirements of several industry codes, including the ASME Pressure Vessel Code, ANSI K61.1 and the National Boiler and Pressure Vessel Inspection Code. While these codes apply to anhydrous ammonia, they may also be used to design storage facilities for aqueous ammonia.

California Health and Safety Code, section 41700, requires that No person shall discharge from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort,

repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause injury or damage to business or property.

LOCAL AND REGIONAL

The Uniform Fire Code (UFC) contains provisions regarding the storage and handling of hazardous materials. These provisions are contained in Articles 79 and 80. The latest revision to Article˚80 was in 1997 (UFC 1997). These articles contain minimum setback requirements for outdoor storage of ammonia.

The California Building Code contains requirements regarding the storage and handling of hazardous materials. The Chief Building Official must inspect and verify compliance with these requirements prior to issuance of an occupancy permit. A further discussion of these requirements is provided in the **FACILITY DESIGN** section of this document.

LAND USE

SAN FRANCISCO INTERNATIONAL AIRPORT MASTER PLAN

The San Francisco International Airport Master Plan (Master Plan) provides San Francisco International Airport (SFIA) with a set of plans, guidelines, policies, and conditions which serve as a framework for decision-making and implementation of landside facilities. The purpose of the Master Plan is twofold:

1. To provide a coordinated development plan that will consolidate and relocate many of the existing landside facilities to increase the efficiency and cost-effectiveness of landside operations.

2. To respond to the projected economic growth of the Bay Area and to ensure that the future development required to meet that demand at the airport is implemented in a manner compatible with the plan.

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

The Bay Conservation and Development Commission (BCDC) was created in 1965 by the McAteer-Petris Act as a temporary agency to prepare an enforceable plan to guide the future protection and use of the San Francisco Bay and its shoreline. The McAteer-Petris Act was amended in 1969 to make permanent the BCDC and its mandate. The McAteer-Petris Act grants the BCDC authority to issue or deny permit applications for placing fill, extracting minerals, or changing the use of any land, water, or structure within the area of its jurisdiction. BCDC s jurisdiction is defined as a shoreline band consisting of all territory located between the shoreline of San Francisco Bay and a line 100 feet landward of and parallel with that line.

CALIFORNIA SUBDIVISION MAP ACT

El Paso will lease a portion of the project site from United Airlines. The City and County of San Francisco (CCSF) is investigating whether a parcel map would be required based on specifications of the lease involving SFIA, United Airlines, and UGGPP. In response to a data request, the applicant stated that Section 66412.1 of the California Government Code exempts the project site from the parcel map requirements of the Subdivision Map Act (El Paso 2000c, data response 32, page DR-3). Staff is waiting for confirmation from CCSF s City Attorney s office, which serves as counsel for SFIA, to confirm that the project will not require a parcel map.

JURISDICTIONAL ISSUES

SAN FRANCISCO INTERNATIONAL AIRPORT AND THE CITY AND COUNTY OF SAN FRANCISCO

The SFIA is an agency of the CCSF and the airport property is part of the CCSF jurisdiction. SFIA is owned by the CCSF and operated by a five-member Airport Commission appointed by the Mayor and a Director of Airports appointed by the Airport Commission. Although SFIA is located in San Mateo County and the City of South San Francisco, land use at SFIA is governed by CCSF and is therefore, not subject to land use regulations of San Mateo County or the City of South San Francisco (SFIA Master Plan 1989). As such, SFIA is self-contained in terms of planning, construction, maintenance, and monitoring of its facilities.

CITY OF SOUTH SAN FRANCISCO

The proposed project is located in that portion of SFIA within the City of South San Francisco and is covered in that city s East of 101 Area Plan. As stated above, SFIA is not subject to the City of South San Francisco s General Plan or zoning regulations. However, in the event of future annexations for purposes of proposing compatible uses and as a basis for cooperative planning with other jurisdictions (including SFIA) the City of South San Francisco has zoned land in the vicinity of the project area P-I (Planned Industrial). This zoning designation is consistent with the proposed use.

NEED CONFORMANCE

STATE

CALIFORNIA CODE OF REGULATIONS

California Code of Regulations states The presiding member s proposed decision shall contain the presiding member s recommendation on whether the application shall be approved, and proposed findings and conclusions on each of the following: (a) Whether and the circumstances under which the proposed facilities are in conformance with the 12-year forecast for statewide and service area electric power demands adopted pursuant to Section 25309(b) of the Public Resources Code. (Cal. Code of Regs., tit. 20,／1752(a).)

PUBLIC RESOURCES CODE

The Energy Commission s Final Decision must include, among other things, Findings regarding the conformity of the proposed facility with the integrated assessment of need for new resource additions determined pursuant to subdivision (a) to (f), inclusive, of Section 25305 and adopted pursuant to Section 25308 or, where applicable, findings pursuant to Section 25523.5 regarding the conformity of a competitive solicitation for new resource additions determined pursuant to subdivisions (a) to (f), inclusive, of Section 25305 and adopted pursuant to Section 25308 that was in effect at the time that the solicitation was developed. (Pub. Resources Code, ／25523(f).)

NEED CONFORMANCE CRITERIA

In order to obtain a license from the Energy Commission, a proposed power plant must be found to be in conformance with the Integrated Assessment of Need. The criteria governing this determination, for projects deemed data adequate prior to July 1, 1999, are contained in the *1996 Electricity Report (ER 96)*, and are most succinctly described on page 72 of that document:

> In sum, the *ER 96* need criterion is this: during the period when *ER 96* is applicable, proposed power plants shall be found in conformance with the Integrated Assessment of Need (IAN) as long as the total number of megawatts permitted does not exceed 6,737.

NOISE

FEDERAL

Under the Occupational Safety and Health Act of 1970 (OSHA) (29 U.S.C.⁄651 et seq.), the Department of Labor, Occupational Safety and Health Administration (OSHA) has adopted regulations (29 C.F.R.⁄1910.95) designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed immediately following this section). The regulations further specify a hearing conservation program that involves monitoring the noise to which workers are exposed; assuring that workers are made aware of overexposure to noise; and periodically testing the workers hearing to detect any degradation.

There are no federal laws governing offsite (community) noise.

STATE

California Government Code Section 65302(f) requires that a noise element be prepared as part of the General Plan to address foreseeable noise problems. In addition, Title 4, California Code of Regulations has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The State land use compatibility guidelines are listed in **Noise: Table 1**.

Other State LORS include the California Environmental Quality Act (CEQA) and California Occupational Safety and Health Administration (Cal-OSHA) regulations.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA requires that significant environmental impacts be identified, and that such impacts be eliminated or mitigated to the extent feasible. The CEQA Guidelines (Cal. Code Regs., tit. 14,⁄15000 et seq., Appendix G,⁄XI) explain that a significant effect from noise may exist if a project would result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project .

CAL-OSHA

Cal-OSHA has promulgated Occupational Noise Exposure Regulations (Cal. Code Regs., tit. 8, ⁄⁄ 5095-5099) that set employee noise exposure limits. These standards are equivalent to the federal OSHA standards described above.

LOCAL

The UGGPP plant site is located at the San Francisco International Airport (SFIA) within the city limits of South San Francisco. SFIA is owned and operated by and under the jurisdiction of the City and County of San Francisco (San Francisco). SFIA is owned by San Francisco as a utility and under state law is therefore not subject to the land use regulations of the County of San Mateo or any other local jurisdiction or municipality, even where zoning has been assigned by local jurisdictions or municipalities (El Paso 2000c). The city of San Bruno is nearby and would be potentially affected by noise from the UGGPP. The noise LORS applicable to this project are from the SFIA Master Plan, as well as the cities of San Bruno and South San Francisco. The applicant has not identified any new off-site linear features that would be required for the UGGPP.

SAN FRANCISCO INTERNATIONAL AIRPORT MASTER PLAN

The SFIA Master Plan contains Noise Abatement Regulations to mitigate the effects of airport noise on the communities and residences that are located near the airport. The regulations combine two approaches to controlling airport noise. First, the regulations require air carriers to progressively use, in their operations at SFIA, the newest and quietest generation of aircraft, Stage 3 airplanes and to progressively limit the nighttime hours during which Stage 2 aircraft can operate. The second approach of the regulations is to impose a maximum nighttime single-event noise limit, which would decrease gradually over time.

CITY OF SOUTH SAN FRANCISCO

The municipal code for the City of South San Francisco includes noise regulations to protect residents from excessive, unnecessary and unreasonable noises (Title 8, Chapter 8.32). Maximum permissible levels for residential land uses are set in Part 8.32.030 at 60 dBA during the daytime (7:00 a.m. to 10:00 p.m.) and 50 to 55 dBA for nighttime hours (10:00 p.m. to 7:00 a.m.). Additional limits are set for the areas east of Highway 101 (Gateway and Oyster Point) and they are 65 dBA for daytime and 60 dBA for nighttime. The municipal code sets an upper noise limit of 70 dBA for any time and any land use.

CITY OF SAN BRUNO

The City s municipal code includes noise regulations to prohibit unnecessary, excessive, and annoying noises from all sources (Chapter 6.16). Part 6.16.060 addresses machinery noise and limits noise generated by any equipment to not exceed the ambient noise level by more than 10 dBA. Part 6.16.070 relates to construction noise and sets daytime (7:00 AM to 10:00 PM) and nighttime (10:00

PM to 7:00 AM) limits. The daytime limit is 85 dBA and the nighttime limit is 60 dBA at 100 feet from the construction activity.

EXHIBIT 1 - NOISE COMPLAINT RESOLUTION FORM

United Golden Gate Power Project (Phase I) (00-AFC-5)
NOISE COMPLAINT LOG NUMBER _____ Complainant s name and address: Phone number: _____
Date complaint received: _____ Time complaint received: _____
Nature of noise complaint:
Definition of problem after investigation by plant personnel: Date complainant first contacted: _____
Initial noise levels at 3 feet from noise source _____ dBA Date: _____ Initial noise levels at complainant s property: _____ dBA Date: _____ Final noise levels at 3 feet from noise source: _____ dBA Date: _____ Final noise levels at complainant s property: _____ dBA Date: _____
Description of corrective measures taken: Complainant s signature: _____ Date: _____
Approximate installed cost of corrective measures: $ _____ Date installation completed: _____ Date first letter sent to complainant: _____ (copy attached) Date final letter sent to complainant: _____ (copy attached)
This information is certified to be correct: Plant Manager s Signature: _____

(Attach additional pages and supporting documentation, as required).

POWER PLANT EFFICIENCY

FEDERAL

No federal laws apply to the efficiency of this project.

STATE

CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES

CEQA Guidelines state that the environmental analysis shall describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy (Cal. Code Regs., tit. 14, § 15126.4(a)(1)). Appendix F of the Guidelines further suggests consideration of such factors as the project s energy requirements and energy use efficiency; its effects on local and regional energy supplies and energy resources; its requirements for additional energy supply capacity; its compliance with existing energy standards; and any alternatives that could reduce wasteful, inefficient and unnecessary consumption of energy (Cal. Code regs., tit. 14, § 15000 et seq., Appendix F).

LOCAL

No local or county ordinances apply to power plant efficiency.

POWERPLANT RELIABILITY

Presently, there are no laws, ordinances, regulations or standards (LORS) that establish either power plant reliability criteria or procedures for attaining reliable operation. However, the commission must make findings as to the manner in which the project is to be designed, sited and operated to ensure safe and reliable operation (Cal. Code Regs., tit. 20,／1752(c)). Staff takes the approach that a project is acceptable if it does not degrade the reliability of the utility system to which it is connected. This is likely the case if the project exhibits reliability at least equal to that of other power plants on that system.

PUBLIC HEALTH

FEDERAL

The Clean Air Act of 1970 (42 U.S.C., section 7401 et seq.) required establishment of ambient air quality standards to protect the public from the effects of air pollutants. These standards are established by the United States Environmental Protection Agency (EPA) for the major air pollutants: nitrogen dioxide, ozone, sulfur dioxide, carbon monoxide, sulfates, and particulate matter with a diameter of 10 micron or less (PM10), and lead.

STATE

California Health and Safety Code section 39606 requires the California Air Resources Board (ARB) to establish California s ambient air quality standards to reflect the California-specific conditions that influence its air quality. Such standards have been established by the ARB for ozone, carbon monoxide, sulfur dioxide, PM10, lead, hydrogen sulfide, vinyl chloride and nitrogen dioxide. The same biological mechanisms underlie some of the health effects of most of these criteria pollutants as well as the noncriteria pollutants. The California standards are listed together with the corresponding federal standards in the **Air Quality** section.

California Health and Safety Code section 41700 states that No person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause or have a natural tendency to cause injury or damage business or property.

The California Health and Safety Code section 39650 et seq. mandates that the California Environmental Protection Agency (Cal-EPA) establish safe exposure limits for toxic, noncriteria air pollutants and identify the best available methods for their control. These laws also require that the new source review rules for each air district include regulations establishing procedures to control the emission of these pollutants. The toxic emissions from natural gas combustion are listed in ARB s April 11, 1996, California Toxic Emissions Factors (CATEF) database for natural gas-fired combustion turbines. Cal-EPA has developed specific cancer potency estimates for assessing their related cancer risks at specific exposure levels. For noncancer-causing toxic air pollutants, Cal-EPA established specific no-effects levels (known as reference exposure levels, or RELs) for assessing the likelihood of producing health effects at specific exposure levels. Such health effects would be considered significant only when exposure exceeds these reference levels. The Energy Commission staff (staff)

uses these Cal-EPA potency estimates and reference exposure values in its health risk assessments.

California Health and Safety Code section 44300 et seq. requires facilities, which emit large quantities of criteria pollutants and any amount of noncriteria pollutants to provide the local air district an inventory of toxic emissions. Such facilities may also be required to prepare a quantitative health risk assessment to address the potential health risks involved. The ARB ensures statewide implementation of these requirements through the state s Area Air Quality Management Districts or Air Districts.

LOCAL

Local implementation of provisions of the Health and Safety Code section 44300 in the project area is ensured by the area s Air District, the Bay Area Air Quality Management District (BAAQMD). UGGPP has complied with the related requirements.

SOCIOECONOMICS

FEDERAL

Executive Order 12898, Federal Actions to address Environmental Justice in Minority Populations and Low-Income Populations, focuses federal attention on the environment and human health conditions of minority communities and calls on agencies to achieve environmental justice as part of this mission. The order requires the U.S. Environmental Protection Agency, and all other federal agencies, and state agencies receiving federal funds to develop strategies to address this issue. The agencies are required to identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and/or low-income populations.

STATE

CALIFORNIA GOVERNMENT CODE, SECTIONS 65996-65997

As amended by SB 50 (Stats. 1998, ch. 407, sec. 23), these sections state that public agencies may not impose fees, charges, or other financial requirements to offset the cost for school facilities.

14 CALIFORNIA CODE OF REGULATIONS, SECTION 15131

(a) Economic or social effects of a project shall not be treated as significant effects on the environment.

(b) Economic or social factors of a project may be used to determine the significance of physical changes caused by the project.

(c) Economic, social and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce and or avoid the significant effects on the environment.

CHAPTER 2 LOCAL

SAN FRANCISCO INTERNATIONAL AIRPORT MASTER PLAN

The Airport Master Plan (Plan) provides the basis for implementing changes in the use of airport-owned landside facilities to improve the efficiency and cost-effectiveness of airport operations (San Francisco 1989). The Plan acknowledges the existence of the United Cogeneration, Inc. (UCI) unit as a backup for the United Airlines Maintenance Center.

SOIL AND WATER RESOURCES

FEDERAL

CLEAN WATER ACT

The Clean Water Act (33 USC section 1257 et seq.) requires states to set standards to protect water quality. Point source discharges to surface water are regulated by this act through requirements set forth in a National Pollutant Discharge Elimination System (NPDES) Permit. Stormwater discharges during construction and operation of a facility also fall under this act and must be addressed through either a project specific or general NPDES permit. In California, the nine Regional Water Quality Control Boards (RWQCB) administer the requirements of the Clean Water Act. Section 404 of the act regulates the discharge of dredged or fill material into waters of the United States, including rivers, streams and wetlands. The Army Corp of Engineers (ACOE) issues site-specific or general (nationwide) permits for such discharges.

STATE

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act of 1967, Water Code section 13000 et seq., requires the State Water Resources Control Board (SWRCB) and the nine RWQCBs to adopt water quality criteria to protect state waters. These criteria include the identification of beneficial uses, narrative and numerical water quality standards and implementation procedures. The criteria for the project area are contained in the San Francisco Bay Basin Water Quality Control Plan (SWRCB 1995). This plan sets numerical and narrative water quality standards controlling the discharge of wastes with elevated temperature to the state s waters.

Section 13550 of the Water Code specifically identifies that the use of potable domestic water for industrial uses, if suitable recycled water is available, is an unreasonable use of water. The availability of recycled water is based upon a number of criteria, which must be taken into account by the SWRCB. These criteria are that: the quality and quantity of the reclaimed water are suitable for the use; the cost is reasonable, the use is not detrimental to public health, will not impact downstream users or biological resources, and will not degrade water quality.

LOCAL

SAN FRANCISCO INTERNATIONAL AIRPORT TENANT IMPROVEMENT GUIDE

The San Francisco International Airport (SFIA) Tenant Improvement Guide (TIG) article 504 specifies storm, industrial and sewage system regulations for developments on the airport property. Section 504.8 (D)(1) states that Sanitary sewage only shall be discharged into the sanitary system. No industrial waste or stormwater shall be discharged or connected to any sanitary sewer The project must comply with all discharge procedures, regulations and provisions regarding waste discharge as required by the guide.

Articles 502 and 503 contain design and materials standards for grading operations. Article 502 states that a permit must be obtained before commencement of work, which may be part of the general tenant permit request. Related activities must conform to the requirements of articles 303 and 403, and other applicable articles or sections of the Guide as well.

TRAFFIC AND TRANSPORTATION

FEDERAL

The federal government addresses transportation of goods and materials in Title 49, Code of Federal Regulations:

- *Sections 171-177 govern the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.*
- *Sections 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.*

STATE

The California Vehicle Code and the Streets and Highways Code contain requirements applicable to the licensing of drivers and vehicles, the transportation of hazardous materials and rights-of-way. In addition, the California Health and Safety Code addresses the transportation of hazardous materials. Specifically, these codes include:

- *California Vehicle Code, Section 353, defines hazardous materials. California Vehicle Code, Sections 31303-31309, regulates the highway transportation of hazardous materials, the routes used, and restrictions thereon.*
- *California Vehicle Code, Sections 31600-31620, regulates the transportation of explosive materials.*
- *California Vehicle Code, Sections 32000-32053, regulates the licensing of carriers of hazardous materials and includes noticing requirements.*
- *California Vehicle Code, Sections 32100-32109, establishes special requirements for the transportation of inhalation hazards and poisonous gases.*
- *California Vehicle Code, Sections 34000-34121, establishes special requirements for the transportation of flammable and combustible liquids over public roads and highways.*
- *California Vehicle Code, Sections 34500, 34501, 34501.2, 34501.3, 34501.4, 34501.10, 34505.5-7, 34506, 34507.5 and 34510-11, regulates the safe operation of vehicles, including those which are used for the transportation of hazardous materials.*
- *California Health and Safety Code, Sections 25160 et seq., addresses the safe transport of hazardous materials.*

- *California Vehicle Code, Sections 2500-2505, authorizes the issuance of licenses by the Commissioner of the California Highway Patrol for the transportation of hazardous materials, including explosives.*
- *California Vehicle Code, Sections 13369, 15275, and 15278, addresses the licensing of drivers and the classifications of licenses required for the operation of particular types of vehicles. In addition, it requires the possession of certificates permitting the operation of vehicles transporting hazardous materials.*
- *California Streets and Highways Code, Sections 117 and 660-72, and California Vehicle Code, Sections 35780 et seq., require permits for the transportation of oversized loads on county roads.*
- *California Streets and Highways Code, Sections 660, 670, 1450, 1460 et seq., 1470, and 1480, regulates right-of-way encroachment and the granting of permits for encroachments on state and county roads.*

LOCAL

CITY AND COUNTY OF SAN FRANCISCO

SAN FRANCISCO AIRPORT COMMISSION RULES AND REGULATIONS

The regulations require compliance with goals and policies for transportation and traffic systems.

CITY OF SOUTH SAN FRANCISCO

SOUTH SAN FRANCISCO GENERAL PLAN

The following General Plan goals and policies establish and identify implementation measures for city traffic and transportation systems:

4.2-G-8 Strive to maintain LOS D or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours.

4.2-G-9 Accept LOS E or F after finding that:

- *There is no practical and feasible way to mitigate the lower level of service; and*
- *The uses resulting in the lower level of service are clear, and provide an overall public benefit.*

SOUTH SAN FRANCISCO MUNICIPAL CODE

Sets standards for truck routes, excavation requirements, encroachment on city streets, and parking requirements.

SAN MATEO COUNTY

SAN MATEO COUNTY TRANSPORTATION PLAN

Sets goals for developing and improving transportation corridors.

TRANSMISSION SYSTEM ENGINEERING

The applicable LORS include:

- California Public Utilities Commission (CPUC) General Order 95 (GO-95);
- CPUC Rule 21;
- Western Systems Coordinating Council (WSCC) Reliability Criteria;
- North American Electric Reliability Council (NERC) Planning Standards;
- Cal-ISO Reliability Criteria;
- Cal-ISO Scheduling Protocols and Dispatch Protocols; and
- Cal-ISO Participating Generator Agreement.

VISUAL RESOURCES

FEDERAL AND STATE

The proposed project is located within the boundaries of the San Francisco International Airport (SFIA), which is owned by the City and County of San Francisco (CCSF). Thus, the project site is not subject to federal land management requirements. The only officially designated State Scenic Highway within the project viewshed is Interstate 280 (I-280) through the City of San Bruno. I-280 is located approximately 2.25 miles west of the project site. State planning law requires the preparation of a local scenic highway element to establish and protect scenic highways. Please see the discussion on the City of San Bruno General Plan below.

LOCAL

CITY AND COUNTY OF SAN FRANCISCO

SAN FRANCISCO INTERNATIONAL AIRPORT TENANT IMPROVEMENT GUIDE

The intent of the Tenant Improvement Guide is to act as a basic reference for airport staff, airport tenants, consultants, and contractors to plan, design, demolish, construct, and install improvements within the airport property, including all rentable land and building space.

CITY OF SOUTH SAN FRANCISCO

GENERAL PLAN/EAST OF 101 AREA PLAN

The project site is located within the corporate limits of the City of South San Francisco and is included in the City s East of 101 Area Plan. The East of 101 Area Plan contains development policies related to visual resources, including building design, fencing, signs, and landscaping. As discussed in the **LAND USE** section of the Staff Assessment, since the airport property is owned by the CCSF, land use at SFIA is governed by CCSF and is not subject to the City of South San Francisco General Plan. Therefore, the policies in the East of 101 Area Plan are not applicable to the proposed project.

CITY OF SAN BRUNO

GENERAL PLAN

The only policy in the City of San Bruno General Plan related to I-280 is Scenic Corridor Policy 20, which directs the City of San Bruno to support beautification efforts along Interstate 280. The project site is located in the City of South San Francisco, over 2 miles from I-280. The policy is not applicable to the project.

WASTE MANAGEMENT

FEDERAL

RESOURCE CONSERVATION AND RECOVERY ACT (42 U.S.C. SECTION 6901 ET SEQ.)

The Act, known as RCRA, sets forth standards for the management of hazardous solid wastes. The U.S. Environmental Protection Agency (EPA) may administer the provisions of RCRA in each state. However, the law allows EPA to delegate the administration of RCRA to the various states. When a state receives final EPA authorization, its regulations have the force and effect of federal law. EPA grants final authorization when a state program is shown to be equivalent to the federal requirements. The Department of Toxic Substances Control in California received final authorization on August 1, 1992.

RCRA establishes requirements for the management of hazardous wastes from the time of generation to the point of ultimate treatment or disposal. Section 6922 requires generators of hazardous waste to comply with requirements regarding:

- *Record keeping practices which identify quantities of hazardous wastes generated and their disposition,*
- *Labeling practices and use of appropriate containers,*
- *Use of a manifest system for transportation, and*
- *Submission of periodic reports to the EPA or authorized state.*

RCRA also establishes requirements applicable to hazardous waste transporters, including record keeping, compliance with the manifest system, and transportation only to permitted facilities.

TITLE 40, CODE OF FEDERAL REGULATIONS, PART 260

These sections contain regulations promulgated by the EPA to implement the requirements of RCRA as described above. Characteristics of hazardous waste are described in terms of ignitability, corrosivity, reactivity, and toxicity, and specific types of wastes are listed.

STATE

CALIFORNIA HEALTH AND SAFETY CODE SECTION 25100 ET SEQ. (HAZARDOUS WASTE CONTROL ACT OF 1972, AS AMENDED).

This act creates the framework under which hazardous wastes must be managed in California. It mandates the State Department of Health Services (now the Department of Toxic Substances Control under the California Environmental Protection Agency, or Cal EPA) to develop and publish a list of hazardous and extremely hazardous wastes, and to develop and adopt criteria and guidelines for

the identification of such wastes. It also requires hazardous waste generators to file notification statements with Cal EPA and creates a manifest system to be used when transporting such wastes.

TITLE 22, CALIFORNIA CODE OF REGULATIONS, SECTION 66262.10 ET SEQ. (GENERATOR STANDARDS)

These sections establish requirements for generators of hazardous waste. Under these sections, waste generators must determine if their wastes are hazardous according to either specified characteristics or lists of wastes. As in the federal program, hazardous waste generators must obtain EPA identification numbers, prepare manifests before transporting the waste off-site, and use only permitted treatment, storage, and disposal facilities. Additionally, hazardous waste must only be handled by registered hazardous waste transporters. Generator requirements for record keeping, reporting, packaging, and labeling are also established.

LOCAL

SAN FRANCISCO HEALTH CODE ARTICLE 22

This article authorizes the San Francisco Department of Public Health to implement and enforce the requirements of the state s Hazardous Waste Control Act .

SAN FRANCISCO HEALTH CODE ARTICLE 22A

This article requires an applicant for a building permit to provide a site history and soil sampling and analysis for the presence of hazardous waste to the Department of Public Health.

WORKER SAFETY AND FIRE PROTECTION

FEDERAL

In December 1970 Congress enacted Public Law 91-596, the Federal Occupational Safety and Health Act of 1970 (the Act). The Act mandates safety requirements in the workplace (29 U.S.C.⁄⁄651 through 678). This public law is codified under General Industry Standards, (29 CFR Part 1910.1 - 1910.1450) and clearly defines the procedures for promulgating regulations and conducting inspections to implement and enforce safety and health procedures to protect workers, particularly in the industrial sector. Most of the safety and health standards now in force under the Act for general industry represent a compilation of materials authorized by the Act from existing federal standards and national consensus standards. These include standards from the voluntary membership organizations of the American National Standards Institute (ANSI), and the National Fire Protection Association (NFPA) which publishes the National Fire Codes.

The congressional purpose of the Act is to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources, (29 USC⁄651). The Federal Department of Labor promulgates and enforces safety and health standards that are applicable to all businesses affecting interstate commerce. The Department of Labor established the Occupational Safety and Health Administration (OSHA) in 1971 to discharge the responsibilities assigned by the Act.

- *Applicable Federal requirements include:*
- *29 U.S. Code⁄651 et seq. (Occupational Safety and Health Act of 1970);*
- *29 CFR Part 1910.1-1910.1450 (Occupational Safety and Health Administration Safety and Health Regulations); and*
- *29 CFR Part 1952.170-1952.175 (Federal approval of California s plan for enforcement of its own Safety and Health requirements, in lieu of most of the Federal requirements found in 29 CFR Part 1910.1-1910.1500).*

STATE

California s Occupational Safety and Health Act of 1973 (Cal/OSHA) is published in the California Labor Code sections 6300 et seq. Regulations promulgated as a result of the Act are codified at Title 8 of the California Code of Regulations, beginning with Part 450. The California Labor Code requires that the State Standards Board must adopt standards at least as effective as the federal standards, that have been promulgated (Labor Code⁄142.3(a)). Health and Safety laws meet or exceed the Federal requirements. Hence, California obtained federal approval of its State health and safety regulations in lieu of the federal requirements published at 29 CFR Parts 1910.1 - 1910.1500. The

Federal Secretary of Labor, however, continually oversees California s program and will enforce any federal standard for which the State has not adopted a Cal/OSHA counterpart.

The State of California Department of Industrial Relations is charged with the responsibility for administering the Cal/OSHA plan. The Department of Industrial Relations is further split into six divisions to oversee, among other activities: industrial accidents, occupational safety and health, labor standards enforcement, statistics and research, and the State Compensation Insurance Fund (workers compensation).

Employers are responsible for insure that their employees are informed about workplace hazards, potential exposure and the work environment (Labor Code／6408). Cal/OSHA s principal tool in ensuring that workers and the public are informed about hazardous materials is the Material Safety Data Sheet (MSDS) (8 CCR／5194). This regulation was promulgated in response to California s Hazardous Substances Information and Training Act of 1990 (／874 and Labor Code〃6360-6399.7). It mirrored the Federal Hazard Communication Standard (29 CFR Part 1910.1200) which established an employee s right to know about chemical hazards in the workplace.

Finally, California Senate Bill 198 requires that employers establish and maintain a written Injury and Illness Prevention Program to identify workplace hazards and communicate them to its employees through a formal employee-training program (8 CCR／3203).

- *Applicable State requirements include:*
- *8 CCR／339 - List of hazardous chemicals relating to the Hazardous Substance Information and Training Act;*
- *8 CCR／450, et seq. - Cal/OSHA regulations;*
- *24 CCR／3, et seq. - incorporates the current edition of the Uniform Building Code;*
- *Health and Safety Code／25500, et seq. - Risk Management Plan requirements for threshold quantity of listed acutely hazardous materials at the facility; and*
- *Health and Safety Code／255000 - 25541 - Hazardous Material Business Plan detailing emergency response plans for hazardous materials emergency at the facility.*

LOCAL

The California Building Standards Code published at Title 24 of the California Code of Regulations, (24 CCR／3 , et seq.) is consists of eleven parts containing the building design and construction requirements relating to fire and life safety and structural safety. The Building Standards Code includes the electrical,

mechanical, energy, and fire codes applicable to the project. Local planning /building & safety departments enforce the California Uniform Building Code.

National Fire Protection Association (NFPA) standards are published in the California Fire Code. The fire code contains general provisions for fire safety, including but not restricted to: 1) required road and building access; 2) water supplies; 3) installation of fire protection and life safety systems; 4) fire-resistive construction; 5) general fire safety precautions; 6) storage of combustible materials; 7) exits and emergency escapes; and 8) fire alarm systems. The California Fire Code is published at Part 9 of Title 24 of the California Code of Regulations.

Similarly the Uniform Fire Code Standards, a companion publication to the California Fire Code, contains standards of the American Society for Testing and Materials and the NFPA. It is the United State s premier model fire code. It is updated annually as a supplement and published every third year by the International Fire Code Institute to include all approved code changes in a new edition.

Applicable local requirements include:

- *1998 Edition of California Fire Code and all applicable NFPA standards (24 CCR Part 9);*
- *Uniform Fire Code Standards; and*
- *California Building Code Title 24, California Code of Regulations Part 3, et seq.*

UNITED GOLDEN GATE

Appendix B

Proof of Service List

STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of:	**)**	**Docket No. 00-AFC-5**
	)	
Application for Certification for the El Paso	**)**	
Merchant Energy s UNITED GOLDEN GATE	**)**	
POWER Project (UGGPP), Phase 1	**)**	

PROOF OF SERVICE

I, _____, declare that on _____, I deposited copies of the attached _____ in the United States mail at Sacramento, CA with first class postage thereon fully prepaid and addressed to the following:

DOCKET UNIT

Send the original signed document plus the required 12 copies to the address below:

CALIFORNIA ENERGY COMMISSION
DOCKET UNIT, MS-4
Attn: Docket No. 00-AFC-5
1516 Ninth Street
Sacramento, CA 95814-5512
E-mail:docket@energy.state.ca.us
* * * *

In addition to the documents sent to the Commission Docket Unit, also send individual copies of any documents to:

APPLICANT

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I declare under penalty of perjury that the foregoing is true and correct.

_____
[signature]

* * * *

INTERNAL DISTRIBUTION LIST

FOR YOUR INFORMATION ONLY! Parties **DO NOT** mail to the following individuals. The Energy Commission Docket Unit will internally distribute documents filed in this case to the following:

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Appendix C

Exhibit List

STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of:	)	
Application for Certification for the	)	
El Paso Merchant Energy s UNITED	)	**Docket No. 00-AFC-5**
GOLDEN GATE POWER	)	
PROJECT (UGGPP), Phase I	)	

EXHIBIT LIST

EXHIBIT 1: Application for Certification for the United Golden Gate Power Project, Phase I, Volumes I, and II, dated September 2000, and as supplemented, dated October 2000. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 2: Applicant s Responses to CEC Staff Data Requests of November 8, 2000, dated December 5, 2000. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 3: Applicant s Responses to CEC Staff Data Requests of November 8, 2000, dated December 15, 2000. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 4: BCDC Jurisdictional Map, dated December 18, 2000. Sponsored by Applicant and received into evidence on January 26, 2001

EXHIBIT 5: Letter from BCDC/Lacko to CEC/Kennedy Re: BCDC Jurisdiction, dated January 3, 2001. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 6: Letter from CEC/Therkelsen to BCDC/Travis, Response to Letter dated October 18, Re: Evaluating Location in an Area Designated by BCDC as an Airport Priority Use, dated December 11, 2000. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 7: Letter from BCDC to CEC/Kennedy, Re: Comments on AFC, dated December 18, 2000. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 8: Application for Authority to Construct, submitted to BAAQMD, dated October 16, 2000. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 9: Preliminary Determination of Compliance, issued by BAAQMD, December 2000. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 10: United Golden Gate Power Project, Phase I Staff Assessment, dated January 2001, Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 11: CEC Staff Memo to Committee, Re: Corrections and Clarifications to the Staff Assessment for Phase I of the United Golden Gate Power Project, dated and filed January 25, 2001. Sponsored by Staff and received into evidence on January 26, 2001.

EXHIBIT 12: Applicant s Summary Testimony, dated January 17, 2001, filed on January 18, 2001. Sponsored by Applicant and received into evidence on January 26, 2001.

EXHIBIT 13: Final Determination of Compliance issued by BAAQMD on February 15, 2001. Docketed on February 27, 2001. Sponsored by Staff; received into evidence on February 23, 2001.

EXHIBIT 14: Letter from Ellen Garby of BAAQMD to R. Therkelsen, dated February 22, 2001. Sponsored by Staff; received into evidence on February 23, 2001.

EXHIBIT 15: Letter from the Cal ISO, dated February 8, 2001 re system stability concerns. Sponsored by Staff; received into evidence on February 23, 2001.

EXHIBIT 16: CEC Staff s February 21, 2001 supplemental testimony which includes the inter-connection study from the Cal ISO. Sponsored by Staff; received into evidence on February 23, 2001.

EXHIBIT 17: CEC Staff Comments on the Presiding Member s Proposed Decision, dated February 16, 2001. Sponsored by Staff; received into evidence on February 23, 2001.

Appendix D

Glossary of Terms and Acronyms

GLOSSARY OF TERMS AND ACRONYMS

	A
A	Ampere
AAL	all aluminum (electricity conductor)
AAQS	Ambient Air Quality Standards
ABAG	Association of Bay Area Governments
AC	alternating current
ACE	Argus Cogeneration Expansion Project Army Corps of Engineers
ACSR	aluminum covered steel reinforced (electricity conductor)
AFC	Application for Certification
AFY	acre-feet per year
AHM	Acutely Hazardous Materials
ANSI	American National Standards Institute
APCD	Air Pollution Control District
APCO	Air Pollution Control Officer
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	Air Resources Board
ARCO	Atlantic Richfield Company
ASAE	American Society of Architectural Engineers
ASHRAE	American Society of Heating Refrigeration & Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ATC	Authority to Construct
	B
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BAF	Basic American Foods
BARCT	Best Available Retrofit Control Technology
bbl	barrel
BCDC	Bay Conservation and Development Commission
BCF	billion cubic feet
Bcfd	billion cubic feet per day
b/d	barrels per day
BLM	Bureau of Land Management
BPA	U.S. Bonneville Power Administration
BR	Biennial Report
Btu	British thermal unit
	C
CAA	U.S. Clean Air Act
CAAQS	California Ambient Air Quality Standards
CALEPA	California Environmental Protection Agency
CALTRANS	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CBC	California Building Code
CCAA	California Clean Air Act
CDF	California Department of Forestry
CDFG	California Department of Fish and Game
CEERT	Coalition for Energy Efficiency and Renewable Technologies
CEM	continuous emissions monitoring
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFB	circulating fluidized bed
CFCs	chloro-fluorocarbons
cfm	cubic feet per minute

CFR	Code of Federal Regulations
cfs	cubic feet per second
CLUP	Comprehensive Land Use Plan
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
COI	California Oregon Intertie
CPCN	Certificate of Public Convenience & Necessity
CPM	Compliance Project Manager
CPUC	California Public Utilities Commission
CT	combustion turbine current transformer
CTG	combustion turbine generator
CURE	California Unions for Reliable Energy
	D
dB	decibel
dB(A)	decibel on the A scale
DC	direct current
DCTL	Double Circuit Transmission Line
DEIR	Draft Environmental Impact Report
DEIS	Draft Environmental Impact Statement
DFG	California Department of Fish and Game
DHS	California Department of Health Services
DISCO	Distribution Company
DOC	Determination of Compliance
DOE	U.S. Department of Energy
DSM	demand side management
DTC	Desert Tortoise Council
DWR	California Department of Water Resources
	E
EDF	Environmental Defense Fund
Edison	Southern California Edison Company
EDR	Energy Development Report
EFS&EPD	Energy Facilities Siting and Environmental Protection Division
EIA	U.S. Energy Information Agency
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ELFIN	Electric Utility Financial and Production Simulation Model
EMF	electric and magnetic fields
EOR	East of River (Colorado River)
EPA	U.S. Environmental Protection Agency
EPRI	Electric Power Research Institute
ER	Electricity Report
ERC	emission reduction credit {offset}
ESA	Endangered Species Act (Federal) Environmental Site Assessment
ETSR	Energy Technologies Status Report
	F
FAA	Federal Aviation Administration
FBE	Functional Basis Earthquake
FCAA	Federal Clean Air Act
FCC	Federal Communications Commission
FEIR	Final Environmental Impact Report
FIP	Federal Implementation Plan
FONSI	Finding of No-Significant Impact
FERC	Federal Energy Regulatory Commission
FSA	Final Staff Assessment G

GEP	good engineering practice
GIS	gas insulated switchgear geographic information system
gpd	gallons per day
gpm	gallons per minute
GW	gigawatt
GWh	gigawatt hour
	H
H_2S	hydrogen sulfide
HCP	habitat conservation plan
HHV	higher heating value
HRA	Health Risk Assessment
HRSG	heat recovery steam generator
HV	high voltage
HVAC	heating, ventilating and air conditioning
	I
IAR	Issues and Alternatives Report
IEA	International Energy Agency
IEEE	Institute of Electrical & Electronics Engineers
IID	Imperial Irrigation District
IIR	Issues Identification Report
IOU	Investor-Owned Utility
IS	Initial Study
ISO	Independent System Operator
	J
JES	Joint Environmental Statement
	K
KCAPCD	Kern County Air Pollution Control District
KCM	thousand circular mils (also KCmil) (electricity conductor)
KGRA	known geothermal resource area
km	kilometer
KOP	key observation point
KRCC	Kern River Cogeneration Company
kV	kilovolt
KVAR	kilovolt-ampere reactive
kW	kilowatt
kWe	kilowatt, electric
kWh	kilowatt hour
kWp	peak kilowatt
	L
LADWP	Los Angeles Department of Water and Power
LAER	Lowest Achievable Emission Rate
lbs	pounds
lbs/hr	pounds per hour
lbs/MMBtu	pounds per million British thermal units
LCAQMD	Lake County Air Quality Management District
LMUD	Lassen Municipal Utility District
LORS	laws, ordinances, regulations and standards
	M
m (M)	meter, million, mega, milli or thousand
MBUAPCD	Monterey Bay Unified Air Pollution Control District
MCE	maximum credible earthquake
MCF	thousand cubic feet
MCL	Maximum Containment Level
MCM	thousand circular mil (electricity conductor)
$\mu g/m^3$	micro grams (10^{-6} grams) per cubic meter

MEID	Merced Irrigation District
MG	milli gauss
mgd	million gallons per day
MID	Modesto Irrigation District
MOU	Memorandum of Understanding
MPE	maximum probable earthquake
m/s	meters per second
MS	Mail Station
MVAR	megavolt-ampere reactive
MW	megawatt (million watts)
MWA	Mojave Water Agency
MWD	Metropolitan Water District
MWh	megawatt hour
MWp	peak megawatt
	N
N-1	one transmission circuit out
N-2	two transmission circuits out
NAAQS	National Ambient Air Quality Standards
NCPA	Northern California Power Agency
NEPA	National Energy Policy Act National Environmental Policy Act
NERC	National Electric Reliability Council
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NMHC	nonmethane hydrocarbons
NO	nitrogen oxide
NOI	Notice of Intention
NOL	North of Lugo
NO_x	nitrogen oxides
NO_2	nitrogen dioxide
NOP	Notice of Preparation (of EIR)
NOV	Notice of Violation
NRDC	Natural Resources Defense Council
NSCAPCD	Northern Sonoma County Air Pollution Control District
NSPS	New Source Performance Standards
NSR	New Source Review
	O
O_3	Ozone
OASIS	Open Access Same-Time Information System
OCB	oil circuit breaker
OCSG	Operating Capability Study Group
O&M	operation and maintenance
OSHA	Occupational Safety and Health Administration (or Act)
	P
PG&E	Pacific Gas & Electric Company
PDCI	Pacific DC Intertie
PHC(S)	Prehearing Conference (Statement)
PIFUA	Federal Powerplant & Industrial Fuel Use Act of 1978
PM	Project Manager particulate matter
PM_{10}	particulate matter 10 microns and smaller in diameter
$PM_{2.5}$	particulate matter 2.5 microns and smaller in diameter
ppb	parts per billion
ppm	parts per million
ppmvd	parts per million by volume, dry
ppt	parts per thousand
PRC	California Public Resources Code

PSD	Prevention of Significant Deterioration
PSRC	Plumas Sierra Rural Electric Cooperative
PT	potential transformer
PTO	Permit to Operate
PU	per unit
PURPA	Federal Public Utilities Regulatory Policy Act of 1978
PV	Palo Verde photovoltaic
PX	Power Exchange
	Q
QA/QC	Quality Assurance/Quality Control
QF	Qualifying Facility
	R
RACT	Reasonably Available Control Technology
RDF	refuse derived fuel
ROC	Report of Conversation reactive organic compounds
ROG	reactive organic gas
ROW	right of way
RWQCB	Regional Water Quality Control Board
	S
SACOG	Sacramento Area Council of Governments
SANBAG	San Bernardino Association of Governments
SANDAG	San Diego Association of Governments
SANDER	San Diego Energy Recovery Project
SB	Senate Bill
SCAB	South Coast Air Basin
SEGS	Solar Electric Generating Station
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison Company
SCFM	standard cubic feet per minute
SCH	State Clearing House
SCIT	Southern California Import Transmission
SCR	Selective Catalytic Reduction
SCTL	single circuit transmission line
SDCAPCD	San Diego County Air Pollution Control District
SDG&E	San Diego Gas & Electric Company
SEPCO	Sacramento Ethanol and Power Cogeneration Project
SIC	Standard industrial classification
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SJVAQMD	San Joaquin Valley Air Quality Management District
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SMUDGEO	SMUD Geothermal
SNCR	Selective Noncatalytic Reduction
SNG	Synthetic Natural Gas
SO_2	sulfur dioxide
SO_x	sulfur oxides
SO_4	sulfates
SoCAL	Southern California Gas Company
SONGS	San Onofre Nuclear Generating Station
SPP	Sierra Pacific Power
STIG	steam injected gas turbine

SWP	State Water Project
SWRCB	State Water Resources Control Board
	T
TAC	Toxic Air Contaminant
TBtu	trillion Btu
TCF	trillion cubic feet
TCM	transportation control measure
TDS	total dissolved solids
TE	transmission engineering
TEOR	Thermally Enhanced Oil Recovery
TID	Turlock Irrigation District
TL	transmission line or lines
T-Line	transmission line
TOG	total organic gases
TPD	tons per day
TPY	tons per year
TS&N	Transmission Safety and Nuisance
TSE	Transmission System Engineering
TSIN	Transmission Services Information Network
TSP	total suspended particulate matter
	U
UBC	Uniform Building Code
UDC	Utility Displacement Credits
UDF	Utility Displacement Factor
UEG	Utility Electric Generator
USC(A)	United States Code (Annotated)
USCOE	U.S. Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
	V
VCAPCD	Ventura County Air Pollution Control District
VOC	volatile organic compounds
	W
W	Watt
WAA	Warren-Alquist Act
WEPEX	Western Energy Power Exchange
WICF	Western Interconnection Forum
WIEB	Western Interstate Energy Board
WOR	West of River (Colorado River)
WRTA	Western Region Transmission Association
WSCC	Western System Coordination Council
WSPP	Western System Power Pool